

LEGEND

- ◆ - PROPOSED MP LOCATION
- ◆ - PROPOSED MP/WATER TABLE WELL LOCATION

0' 500' 1000' 2000'
SCALE

EARTH TECH	
ATYCO INTERNATIONAL LTD. COMPANY	
DRAWN BY: JRD	DATE: MARCH 4, 2003
CHECKED BY: RS	EDITED BY: JRD
FILE NAME: PROPOSED MONITORING POINTS	

FIGURE 10
OFF-SITE PLUME
INVESTIGATION AREA

Appendix A - Hydraulic Conductivity Technical Memorandum

MARCH 4, 2003



M E M O

Date: June 26, 2002
To: Joan Underwood **cc:** Rob Stenson, Drew Lonergan
From: Mike Wolf/Tom Sampson
Subject: DC DAYTON AQUIFER TESTING

Aquifer hydraulic conductivity was determined by conducting slug tests at selected monitoring wells (MWB1, MWC1, PZ7I, MWB5, PZ8I, PZ8D, MWB3, PZ-16D, MWA2, MWB2, MWC2). Slug test equipment included a Hermit SE1000 data logger, 20 psi transducer, electronic water level indicator, K-packer assembly and a vacuum pump. A water level meter was used to measure the depth to water. The transducer was placed in the well approximately 15 to 20 feet below the water table and connected to the data logger through the K-packer assembly. The K-packer assembly was used to seal off the well from atmospheric pressure. The data logger records the change in groundwater level in the well as measured by the transducer.

The K-packer assemblage allows a vacuum to be created in the well casing utilizing the vacuum pump. The vacuum is applied to the well casing through tubing connected to an air port linked to the inside of the K-packer. The vacuum lifts a column of water in the well casing. When water appears in the vacuum tubing at the surface, a large diameter ball valve (2-inch) is opened which releases the vacuum and causes the column of water to flow back into the formation. This is correlative to dropping a PVC slug into the well and conducting a falling head test. Conversely, the well casing can be pressurized by connecting the tubing to the air outlet side of the vacuum pump, allowing for the depression of the water table. Releasing the air pressure allows the aquifer water to reenter the well casing and stabilize. This is correlative to removing a PVC slug from the well casing and conducting a rising head test.

Groundwater displacement (feet) and time (minutes) data were recorded during the rising head and falling head slug tests.

Data collected from several of the wells showed an oscillation of the water level after the slug of water was released. These data were processed using a different method than the "normal" slug test data.

Well and Aquifer Parameters

The data were analyzed following the Bouwer and Rice (1976) method for unconfined aquifers; however, the oscillating data sets were evaluated using a spreadsheet developed by the Kansas Geological Survey that is an extension of the Bouwer and Rice (1976) method. Based on the oscillating data set, a type curve is developed and matched to the oscillating data. The Bouwer and Rice equation is then corrected by parameters used in matching the type curve to the data.

The non-oscillating data were evaluated with the Bouwer and Rice method using AQTESOLV computer software (HYDROSOLVE, Inc., 1996). The following well and aquifer parameters were obtained from



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well logs to assist in the curve matching: radius of borehole (r_w), radius of well casing (r_c), aquifer saturated thickness (b), effective well screen length (L), static height of water in the well (D), and filter pack porosity. The parameters vary based on the hydrogeologic conditions in the vicinity of the well.

The radius of well casing (r_c) is the radius of the well screen and well riser pipe. All of the well casings tested were two inches in diameter ($r_c = 0.083$ feet). The borehole radius (r_w) varies depending on the drilling method used and on the hydraulic contrast between the well filter pack and the formation. If the filter pack and the screened formation are hydraulically similar, then r_w is equal to the radius of the well casing (HYDROSOLVE, 1996). If the filter pack and the screened formation are hydraulically dissimilar, then r_w is equal to the radius of the borehole. All wells tested during this project assumed the filter pack to be hydraulically dissimilar to the formation being screened, therefore, r_w is assumed equal to the radius of the borehole. An assumption of an 8-inch borehole was used ($r_w = 0.33$ feet).

Aquifer saturated thickness (b) is the estimated saturated thickness of the aquifer being tested, within the effective well screen length of the well. Effective well screen length (L) varies depending on the hydraulic contrast between the well filter pack and the formation. If the filter pack and the screened formation are hydraulically similar, then L is equal to the length of the well screen (Bouwer and Rice, 1976, Bouwer, 1989). If the filter pack and the screened formation are hydraulically dissimilar, then L is equal to the length of the filter pack interval. However, if the water level intersects the well screen at the time of field testing, L equals the length from the bottom of the well to the water level.

All wells assumed the filter pack to be hydraulically similar to the formation being screened. Therefore, the effective screen length (L) was the length of the well screen.

The static height of water in the well (D) is the length from the bottom of the well to the water level. Filter pack porosity was estimated at 30 percent, which is within the porosity range for sand cited in standard literature (Freeze and Cherry, 1979; Domenico and Schwartz, 1990).

Curve matching assumptions

The underlying assumptions involved with the Bouwer and Rice method include: 1) Drawdown of the water table around the well is negligible; 2) Flow above the water table (capillary fringe) can be ignored; 3) Well losses are negligible; 4) The aquifer is homogeneous and isotropic; 5) The aquifer has infinite areal extent; 6) Aquifer is confined or unconfined; 7) Flow is steady; 8) A volume of water, V, is injected into or discharged from the well instantaneously; 9) Aquifer potentiometric surface is initially horizontal. Of these assumptions, Nos. 2 and 3 are typically met in field conditions. Assumptions No. 1 and No. 9 are met if the amount of initial drawdown is small. Assumption No. 4 is more difficult to meet since a geologic formation is rarely homogeneous and isotropic. For most practical purposes, assumption No. 5 is valid for slug testing. Freeze and Cherry (1979) note that geologic formations are usually heterogeneous and anisotropic, and consequently that the hydraulic conductivity values should be viewed as "best estimates".

Selection of the segment of the data plot of the natural logarithm of displacement/drawdown versus time to be used for the calculation of hydraulic conductivity is based on the fit of a straight line to the data (Bouwer and Rice, 1976). The straight-line portion of a plot of recovery versus time is the valid data to be used in the analysis. The non-oscillating drawdown data were evaluated using AQTESOLV.



The hydraulic conductivities calculated from the aquifer testing are summarized in Table 1. The spreadsheets and type curve-matching plots for the oscillating data are presented in Attachment A. The AQTESOLV curve-matching plots of the data are provided in Attachment B.

The hydraulic conductivities calculated using the spreadsheet for the oscillating data ranged from 72 to 172 feet/day (2×10^{-2} to 6×10^{-2} cm/sec). The hydraulic conductivities calculated using the AQTESOLV program ranged from 112 to 1636 ft/day (3.9×10^{-2} to 5.8×10^{-1} cm/sec). The hydraulic conductivity based on the GEM pump test data is approximately 750 ft/day (2.6×10^{-1} cm/sec), which is similar to the values calculated using the non-oscillating slug test data. Soil boring logs for the wells generally indicate sand and gravel across the screened intervals that correspond to the high hydraulic conductivities observed.

Table 1
Hydraulic Conductivities

Well ID	Type	Evaluation Bower-Rice Only /Oscillation	Hydraulic Conductivity (cm/sec)	Hydraulic Conductivity (ft/day)
MW-A2	Falling	OSC	0.06	171
MW-B1	Rising	OSC	0.03	80
MW-B1	Rising	OSC	0.05	72
MW-B1	Falling	OSC	0.06	154
MW-B2	Rising	BR	0.06	182
MW-B2	Falling	BR	0.006	17
MW-B3	Rising	BR/OSC	0.32/0.02	908/63
MW-B3	Falling	BR	0.4	1136
MW-B5	Rising	OSC	0.03	76
MW-B5	Falling	OSC	0.04	118
MW-C1	Rising	BR	0.02	569
MW-C2	Rising	BR	0.04	114
MW-C2	Falling	BR	0.04	112
PZ-7I	Rising	BR	0.45	1267
PZ-7I	Falling	BR	0.45	1255
PZ-8I	Rising	BR	0.56	1602
PZ-8I	Falling	BR	0.58	1636
PZ-8D	Rising	BR	0.48	1354
PZ-8D	Falling	BR	0.45	1273
PZ-16D	Rising	BR	0.30	844
PZ-16D	Falling	BR	0.36	1031



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ATTACHMENT A

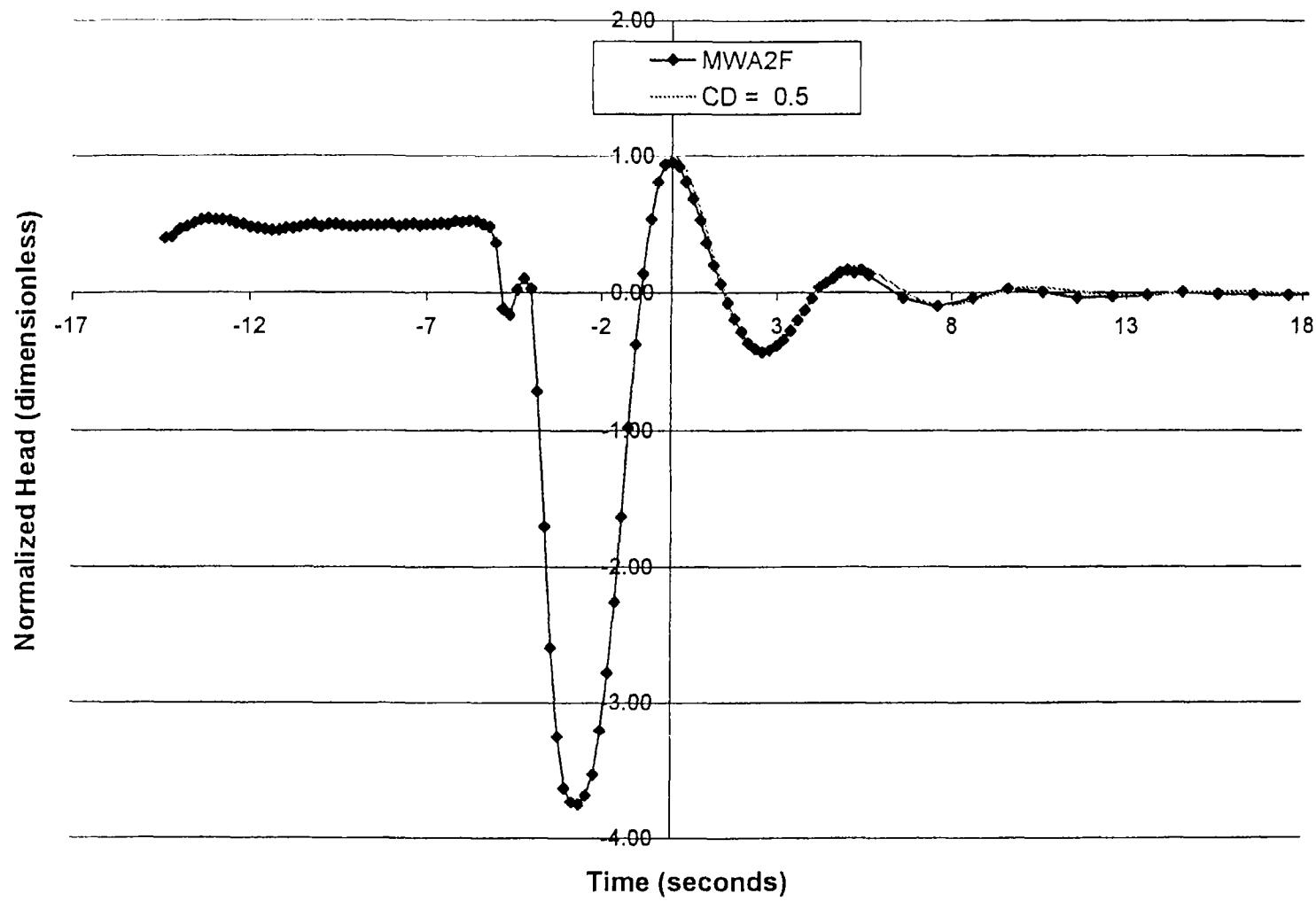
Oscillating Data Plots and Spreadsheets



MW-A2
Falling Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit									
3	Time		Type Curve									
4	Correlation Ratio		C _D			K _r =	t _d * r _c ² ln[b/(2r _w [*])+(1+(b/(2r _w [*]))^2)^0.5]					
5	t _d [*] /t [*]		0.5			t [*]	2bC _D					
6	1.250											
7						Bracketted quantity					26.704	
8	computed from ratio	Le =	20.61 ft									
9	nominal	Le =	11.77 ft			K _r =	2.79E-03 ft/sec					
10	% difference		75%				2.41E+02 ft/day	7.35E+01 m/day				
11							8.51E-02 cm/sec					
12												
13	Modulation Factor =		0.800									
14												
15						K _r =	t _d * r _c ² ln[R _e /r _w [*]]					
16	Dimensionless	C _D =		Adjusted			t [*]	2bC _D				
17	Time	0.5		Time								
18	0	1		0		ln(R _e /r _w [*]) =	2.322		A =	2.359		
19	0.1	0.995086		0.0800					B =	0.373		
20	0.2	0.980714		0.1600		first term	1.1/(ln((d+b)/r _w [*]))					
21	0.3	0.957485		0.2400			0.272					
22	0.4	0.926057		0.3200		second term	(A + B * (ln((B-(d+b))/r _w [*])))/(b/r _w [*]))					
23	0.5	0.887137		0.4000					0.159			
24	0.6	0.841468		0.4800		ln[(B-(d+b))/r _w [*]]		5.049				
25	0.7	0.789826		0.5600					Cannot exceed 6.			
26	0.8	0.733005		0.6400					See Butler (1997) - p.108.			
27	0.9	0.671812		0.7200								
28	1	0.607055		0.8000		K _r =	1.97E-03 ft/sec					
29	1.1	0.53954		0.8800			1.71E+02 ft/day	5.20E+01 m/day				
30	1.2	0.47006		0.9600			6.03E-02 cm/sec					

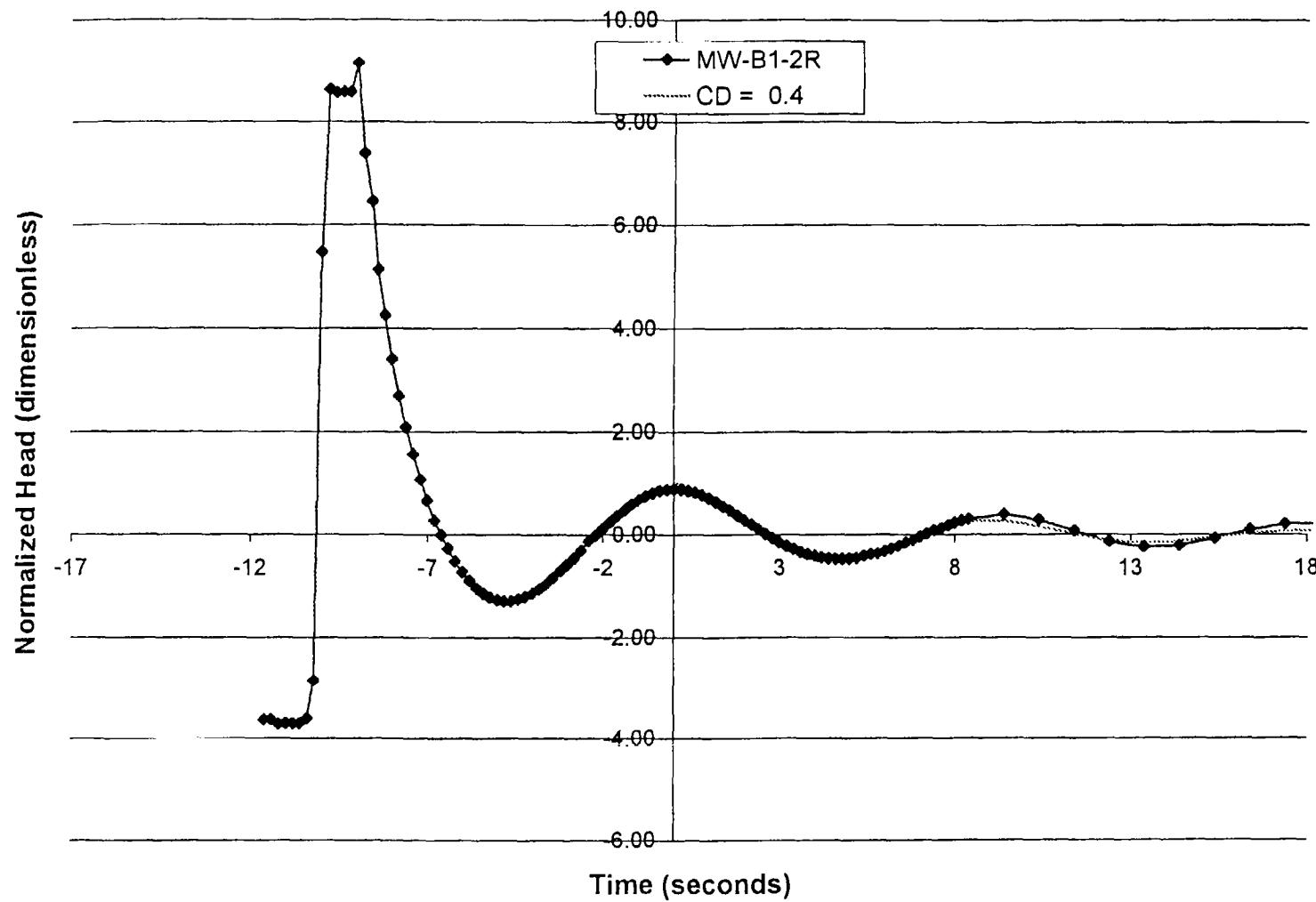
Curve Matching



MW-B1
Rising Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit					Confined - High-K Hvorslev Model				
3	Time		Type Curve									
4	Correlation Ratio		C _D				K _r =	t _d * r _c ² ln[b/(2r _w *) + (1+(b/(2r _w *)) ²) ^{0.5}]				
5	t _d */t*		0.4				t*	2bC _D				
6	0.714											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	63.11 ft									
9	nominal	Le =	51.31 ft				K _r =	1.99E-03 ft/sec				
10	% difference		23%					1.72E+02 ft/day	5.25E+01 m/day			
11								6.08E-02 cm/sec				
12												
13	Modulation Factor =		1.400				Unconfined - High-K Bouwer and Rice Model					
14												
15							K _r =	t _d * r _c ² ln[R _e /r _w *)]				
16	Dimensionless	C _D =		Adjusted			t*	2bC _D				
17	Time	0.4		Time								
18	0	1		0			ln(R _e /r _w *) =	2.939		A =	2.359	
19	0.1	0.99507		0.1400						B =	0.373	
20	0.2	0.980587		0.2800			first term	1.1/(ln((d+b)/r _w *))				
21	0.3	0.957068		0.4200				0.209				
22	0.4	0.925097		0.5600			second term		(A + B * (ln((B-(d+b))/r _w *)))/(b/r _w *)			
23	0.5	0.885319		0.7000					0.131			
24	0.6	0.838429		0.8400			ln[(B-(d+b))/r _w *)]		3.051			
25	0.7	0.785166		0.9800					Cannot exceed 6.			
26	0.8	0.726301		1.1200					See Butler (1997) - p.108.			
27	0.9	0.66263		1.2600								
28	1	0.594966		1.4000			K _r =	1.78E-03 ft/sec				
29	1.1	0.524128		1.5400				1.54E+02 ft/day	4.70E+01 m/day			
30	1.2	0.450934		1.6800				5.45E-02 cm/sec				

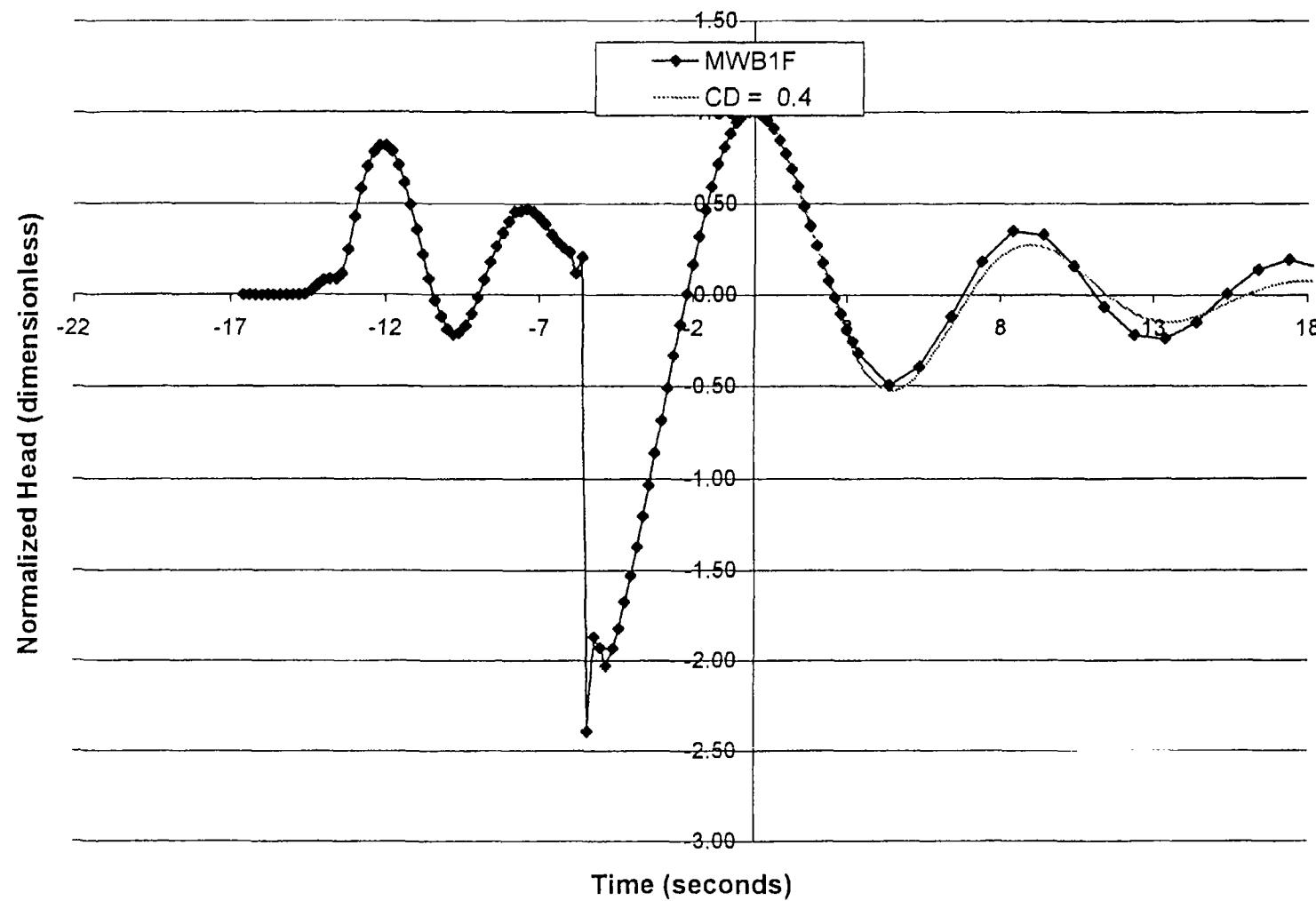
Curve Matching



MW-B1
Falling Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit									
3	Time		Type Curve									
4	Correlation Ratio		C _D				K _r =	t _d * r _c ² ln[b/(2r _w [*])+(1+(b/(2r _w [*]))^2)^0.5]				
5	t _d */t*		0.4				t*	2bC _D				
6	0.714											
7							Bracketted quantity				26.704	
8	computed from ratio	Le =	63.11 ft									
9	nominal	Le =	51.31 ft				K _r =	1.99E-03 ft/sec				
10	% difference		23%					1.72E+02 ft/day	5.25E+01 m/day			
11								6.08E-02 cm/sec				
12												
13	Modulation Factor =		1.400									
14												
15							K _r =	t _d * r _c ² ln[R _e /r _w [*]]				
16	Dimensionless	C _D =		Adjusted			t*	2bC _D				
17	Time	0.4		Time								
18	0	1		0			ln(R _e /r _w [*]) =	2.939	A =	2.359		
19	0.1	0.99507		0.1400					B =	0.373		
20	0.2	0.980587		0.2800			first term	1.1/(ln((d+b)/r _w [*]))				
21	0.3	0.957068		0.4200				0.209				
22	0.4	0.925097		0.5600			second term	(A + B * (ln[(B-(d+b))/r _w [*]]))) / (b/r _w [*])				
23	0.5	0.885319		0.7000					0.131			
24	0.6	0.838429		0.8400			ln[(B-(d+b))/r _w [*]]		3.051			
25	0.7	0.785166		0.9800					Cannot exceed 6.			
26	0.8	0.726301		1.1200					See Butler (1997) - p.108.			
27	0.9	0.66263		1.2600								
28	1	0.594966		1.4000			K _r =	1.78E-03 ft/sec				
29	1.1	0.524128		1.5400				1.54E+02 ft/day	4.70E+01 m/day			
30	1.2	0.450934		1.6800				5.45E-02 cm/sec				

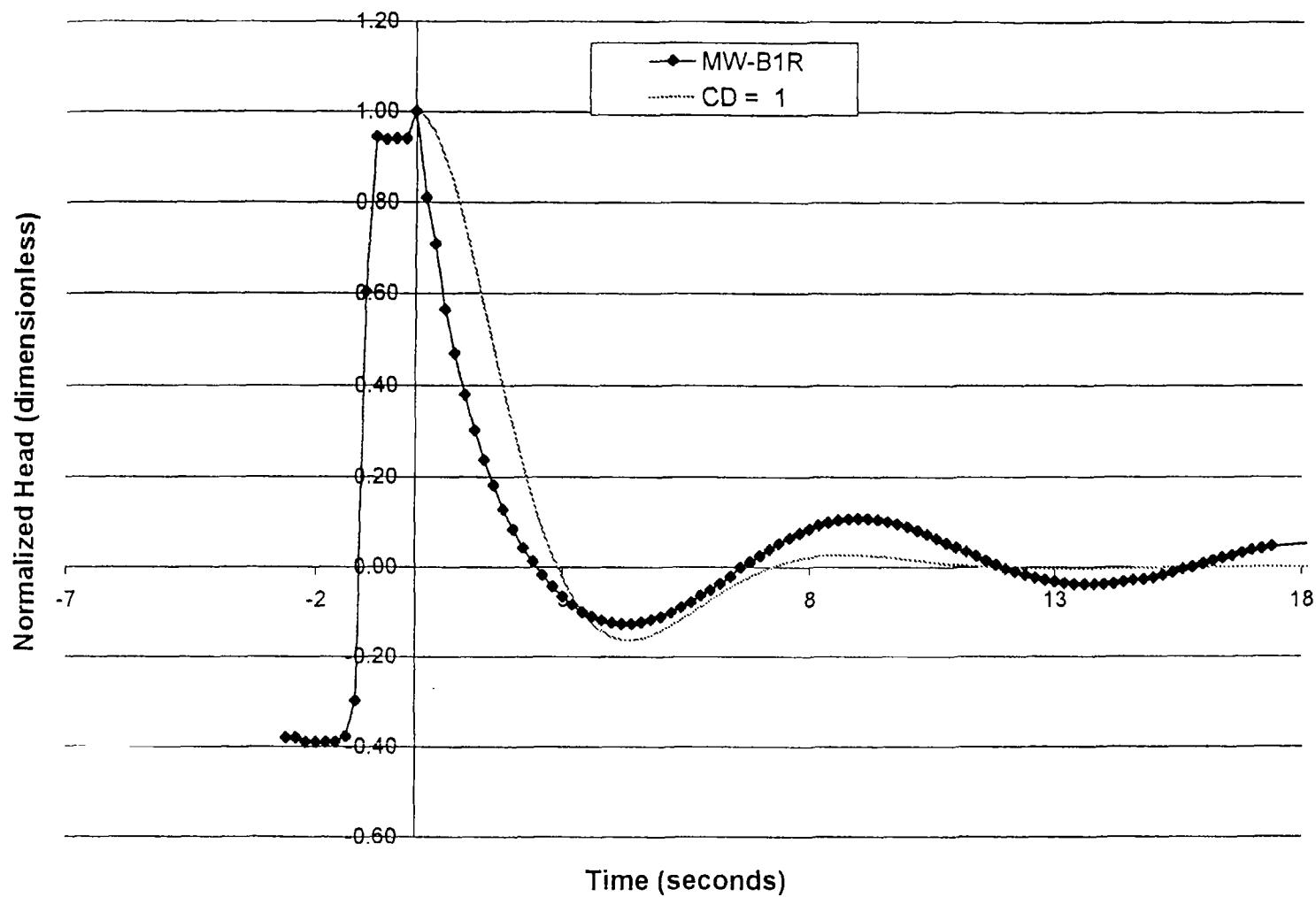
Curve Matching



MW-B1
Rising Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit					Confined - High-K Hvorslev Model				
3	Time		Type Curve									
4	Correlation Ratio		C _D				K _r =	t _d * r _c ² ln[b/(2r _w [*])+(1+(b/(2r _w [*]))^2)^0.5]				
5	t _d [*] /t [*]		1				t [*]	2bC _D				
6	0.833											
7							Bracketted quantity		26.704			
8	computed from ratio	Le =	46.37 ft									
9	nominal	Le =	51.31 ft				K _r =	9.31E-04 ft/sec				
10	% difference		10%					8.04E+01 ft/day	2.45E+01 m/day			
11								2.84E-02 cm/sec				
12												
13	Modulation Factor =		1.200				Unconfined - High-K Bouwer and Rice Model					
14												
15							K _r =	t _d * r _c ² ln[R _e /r _w [*]]				
16	Dimensionless	C _D =		Adjusted			t [*]	2bC _D				
17	Time	1		Time								
18	0	1		0			In(R _e /r _w [*]) =	2.939		A =	2.359	
19	0.1	0.995167		0.1200						B =	0.373	
20	0.2	0.981331		0.2400			first term	1.1/(ln((d+b)/r _w [*]))				
21	0.3	0.959481		0.3600				0.209				
22	0.4	0.930587		0.4800			second term	(A + B * (ln[(B-(d+b))/r _w [*]]))) / (b/r _w [*])				
23	0.5	0.895595		0.6000						0.131		
24	0.6	0.855416		0.7200			In[(B-(d+b))/r _w [*]]			3.051		
25	0.7	0.810928		0.8400						Cannot exceed 6.		
26	0.8	0.762963		0.9600						See Butler (1997) - p.108.		
27	0.9	0.712308		1.0800								
28	1	0.6597		1.2000			K _r =	8.33E-04 ft/sec				
29	1.1	0.605826		1.3200				7.19E+01 ft/day	2.19E+01 m/day			
30	1.2	0.551319		1.4400				2.54E-02 cm/sec				

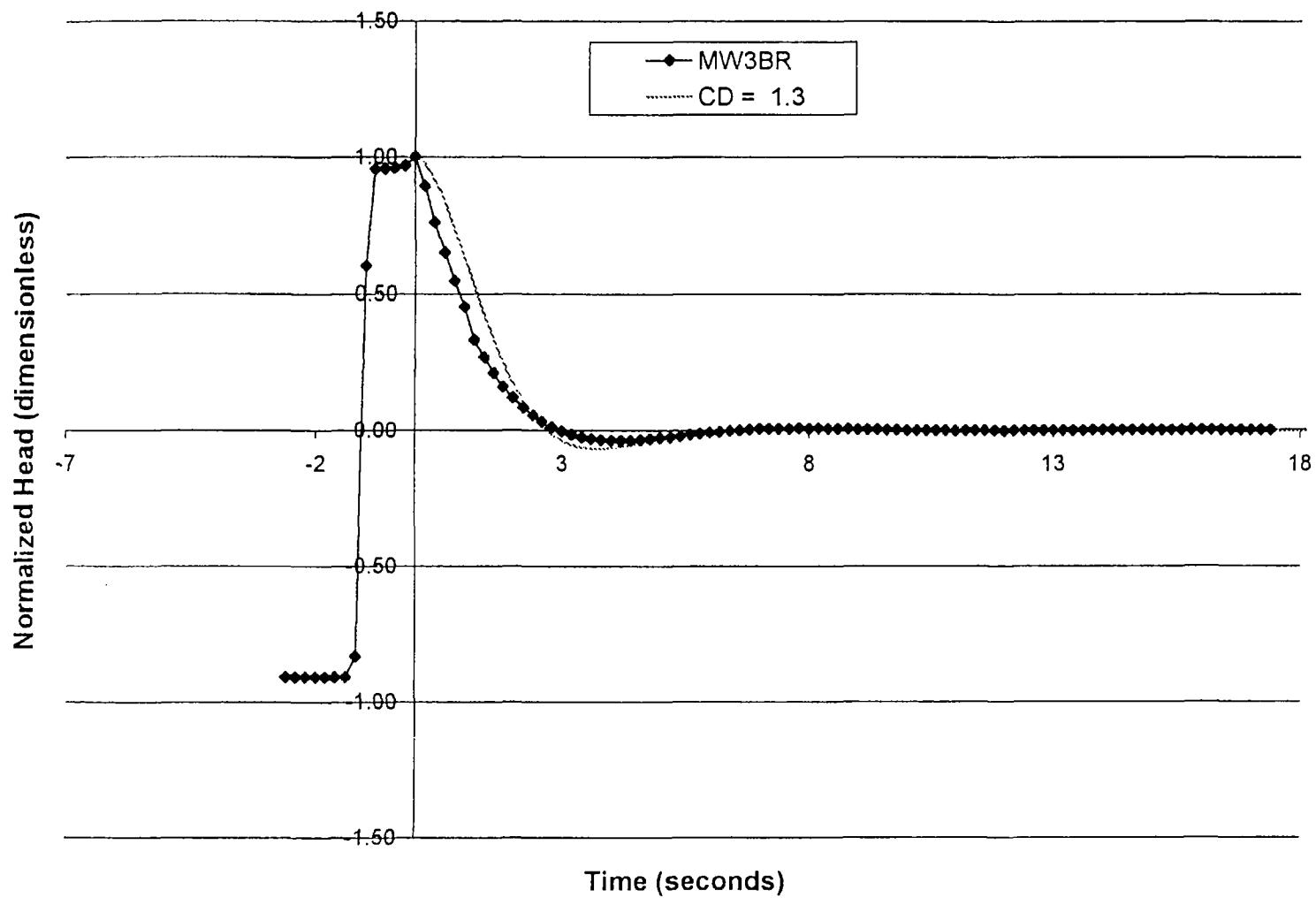
Curve Matching



MW-B3
Rising Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2												
3												
4												
5												
6												
7												
8	computed from ratio	Le =		26.08 ft								
9	nominal	Le =		25.97 ft								
10	% difference			0%								
11												
12												
13	Modulation Factor =	0.900										
14												
15												
16	Dimensionless	C _D =		Adjusted								
17	Time	1.3		Time								
18	0	1		0								
19	0.1	0.995214		0.0900								
20	0.2	0.981686		0.1800				first term	1.1/(ln((d+b)/r _w *))			
21	0.3	0.96061		0.2700					0.241			
22	0.4	0.933103		0.3600				second term	(A + B * (ln((B-(d+b))/r _w *)))/(b/r _w *))			
23	0.5	0.900206		0.4500						0.155		
24	0.6	0.862885		0.5400						4.771		
25	0.7	0.822029		0.6300						Cannot exceed 6.		
26	0.8	0.778451		0.7200						See Butler (1997) - p.108.		
27	0.9	0.732893		0.8100								
28	1	0.686021		0.9000			K _r =	7.33E-04 ft/sec				
29	1.1	0.638435		0.9900				6.33E+01 ft/day	1.93E+01 m/day			
30	1.2	0.590669		1.0800				2.24E-02 cm/sec				

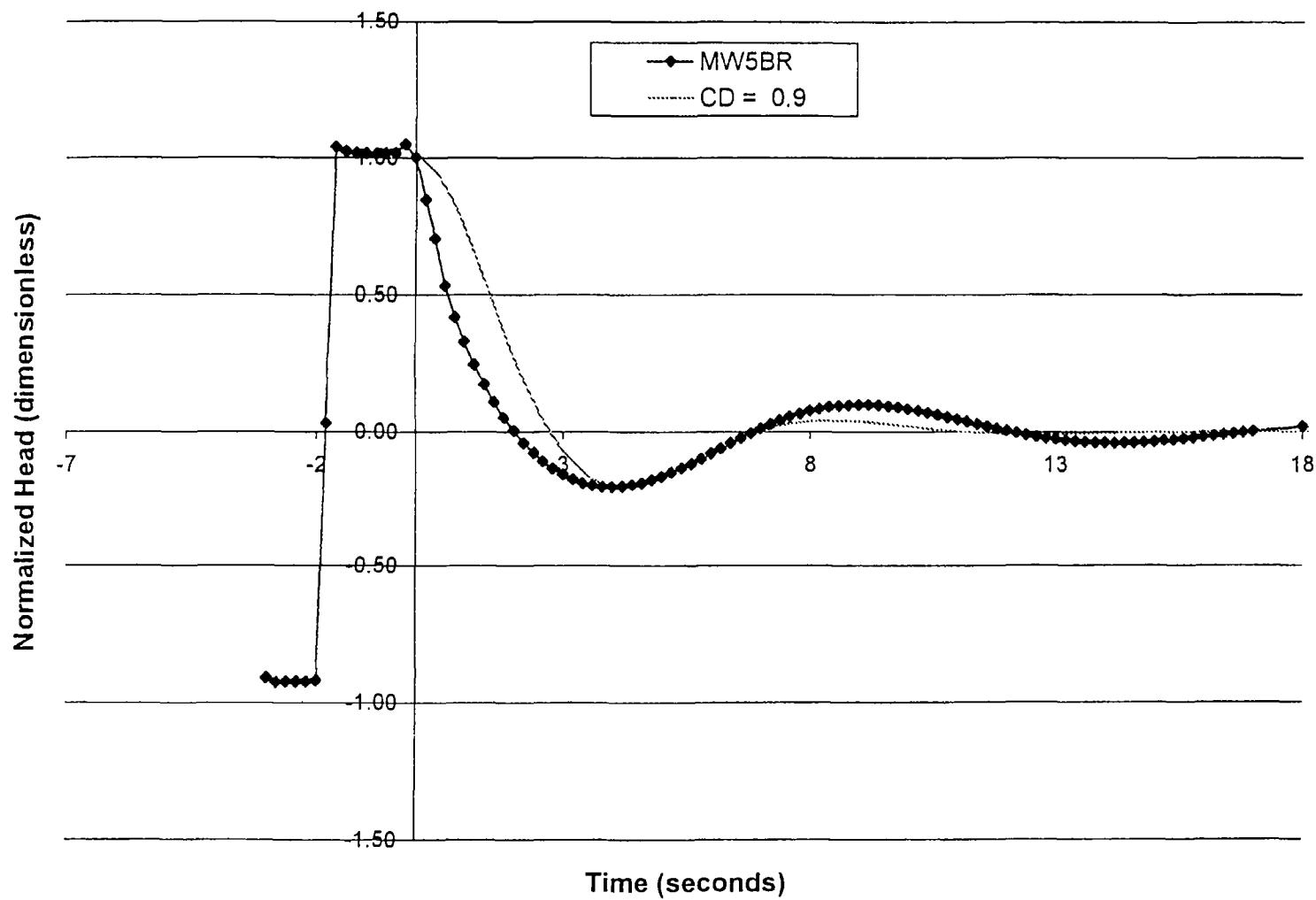
Curve Matching



MW-B5
Rising Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit									
3	Time		Type Curve									
4	Correlation Ratio		C _D				K _r =	t _d * r _c ² ln[b/(2r _w *) + (1+(b/(2r _w *)) ²) ^{0.5}]				
5	t _d * / t*		0.9				t*	2bC _D				
6	0.833											
7							Bracketted quantity					26.704
8	computed from ratio	Le =	46.37 ft									
9	nominal	Le =	61.40 ft				K _r =	1.03E-03 ft/sec				
10	% difference		24%					8.94E+01 ft/day	2.72E+01 m/day			
11								3.15E-02 cm/sec				
12												
13	Modulation Factor =		1.200									
14												
15							K _r =	t _d * r _c ² ln[R _e /r _w *)]				
16	Dimensionless	C _D =		Adjusted			t*	2bC _D				
17	Time	0.9		Time								
18	0	1		0			ln(R _e /r _w *) =	2.808	A =	2.359		
19	0.1	0.995151		0.1200					B =	0.373		
20	0.2	0.98121		0.2400			first term	1.1/(ln((d+b)/r _w *))				
21	0.3	0.959093		0.3600				0.210				
22	0.4	0.929716		0.4800			second term	(A + B * (ln[(B-(d+b))/r _w]))/(b/r _w *)				
23	0.5	0.893983		0.6000					0.146			
24	0.6	0.852784		0.7200			ln[(B-(d+b))/r _w *)]		4.152			
25	0.7	0.806982		0.8400					Cannot exceed 6.			
26	0.8	0.757411		0.9600					See Butler (1997) - p.108.			
27	0.9	0.70487		1.0800								
28	1	0.650115		1.2000			K _r =	8.84E-04 ft/sec				
29	1.1	0.593861		1.3200				7.64E+01 ft/day	2.33E+01 m/day			
30	1.2	0.536775		1.4400				2.70E-02 cm/sec				

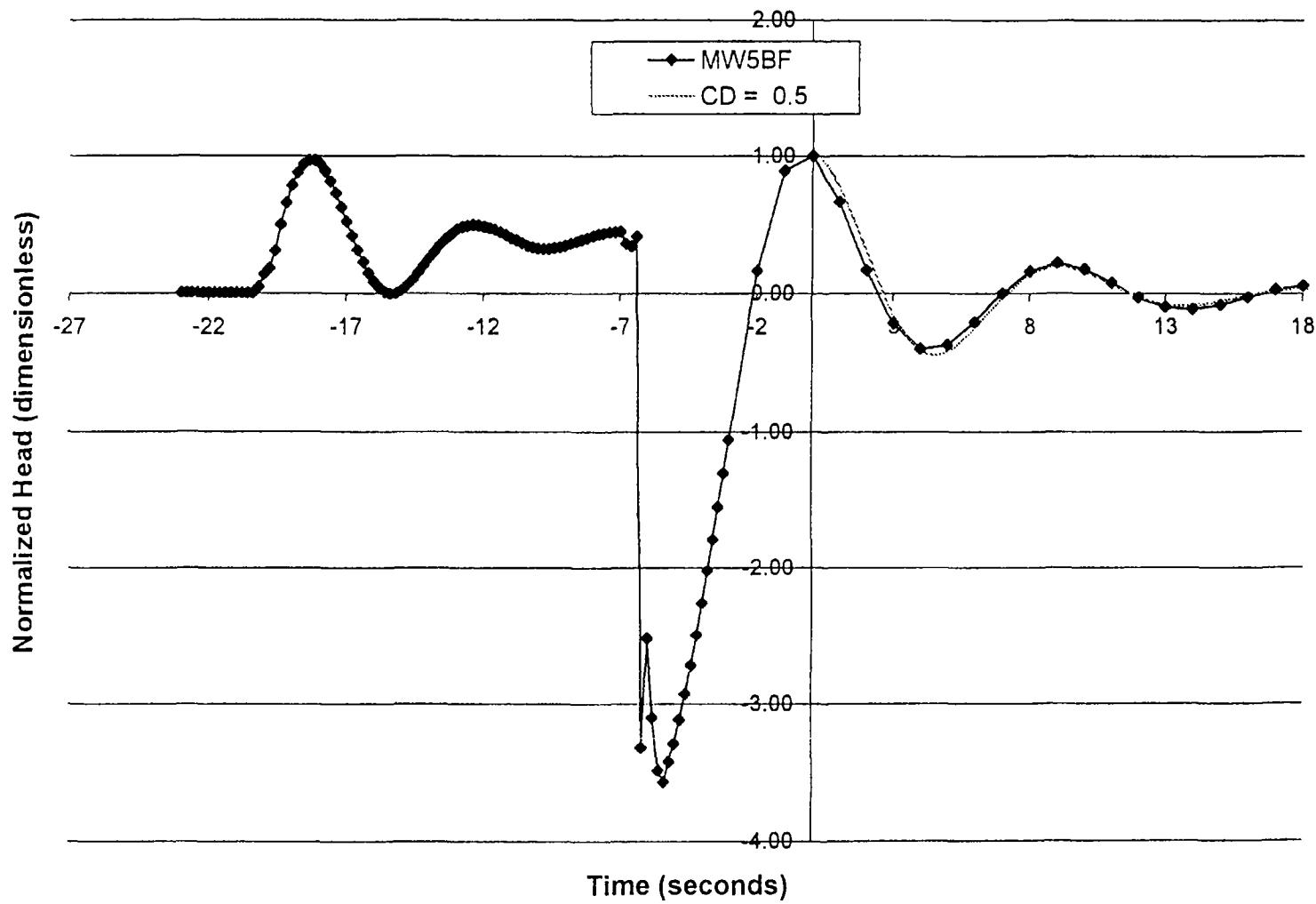
Curve Matching



MW-B5
Falling Head

	L	M	N	O	P	Q	R	S	T	U	V	W
1												
2			Best Fit									
3	Time		Type Curve									
4	Correlation Ratio		C _D				K _r =	t _d * r _c ² ln[b/(2r _w [*])+(1+(b/(2r _w [*])) ²) ^{0.5}]				
5	t _d [*] /t*		0.5				t*	2bC _D				
6	0.714											
7							Bracketted quantity					26.704
8	computed from ratio	Le =	63.11 ft									
9	nominal	Le =	61.40 ft				K _r =	1.60E-03 ft/sec				
10	% difference		3%					1.38E+02 ft/day	4.20E+01 m/day			
11								4.86E-02 cm/sec				
12												
13	Modulation Factor =		1.400									
14												
15							K _r =	t _d * r _c ² ln[R _e /r _w [*]]				
16	Dimensionless	C _D =		Adjusted			t*	2bC _D				
17	Time	0.5		Time								
18	0	1		0			ln(R _e /r _w [*]) =	2.808		A =	2.359	
19	0.1	0.995086		0.1400						B =	0.373	
20	0.2	0.980714		0.2800			first term	1.1/(ln((d+b)/r _w [*]))				
21	0.3	0.957485		0.4200				0.210				
22	0.4	0.926057		0.5600			second term	(A + B * (ln((B-(d+b))/r _w [*])))/(b/r _w [*]))				
23	0.5	0.887137		0.7000								0.146
24	0.6	0.841468		0.8400			ln[(B-(d+b))/r _w [*]]		4.152			
25	0.7	0.789826		0.9800						Cannot exceed 6.		
26	0.8	0.733005		1.1200						See Butler (1997) - p.108.		
27	0.9	0.671812		1.2600								
28	1	0.607055		1.4000			K _r =	1.36E-03 ft/sec				
29	1.1	0.53954		1.5400				1.18E+02 ft/day	3.59E+01 m/day			
30	1.2	0.47006		1.6800				4.17E-02 cm/sec				

Curve Matching

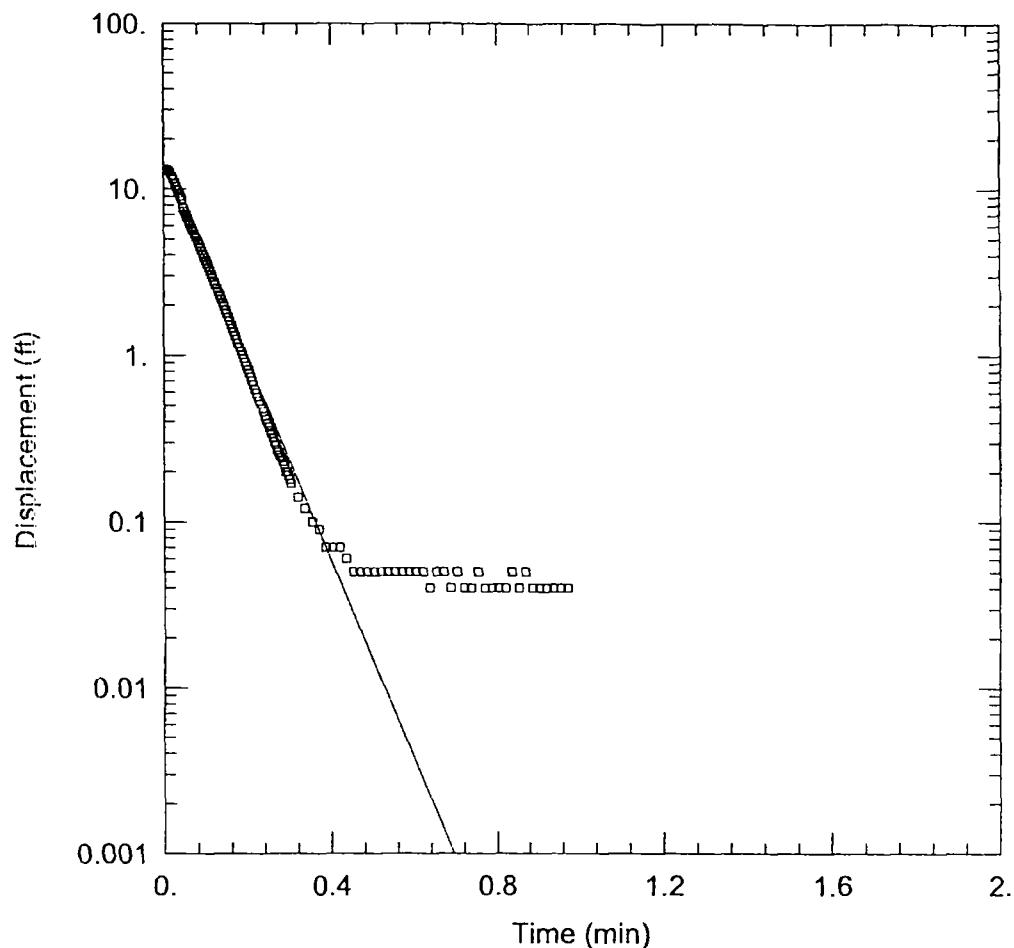


June 26, 2002
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ATTACHMENT B

AQTESOLV Plots





WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWB2R.AQT
 Date: 06/26/02 Time: 20:01:25

PROJECT INFORMATION

Company: Earth Tech
 Client: Daimler Chrysler
 Test Well: MWB2R
 Test Date 5/30/02

AQUIFER DATA

Saturated Thickness: 80. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

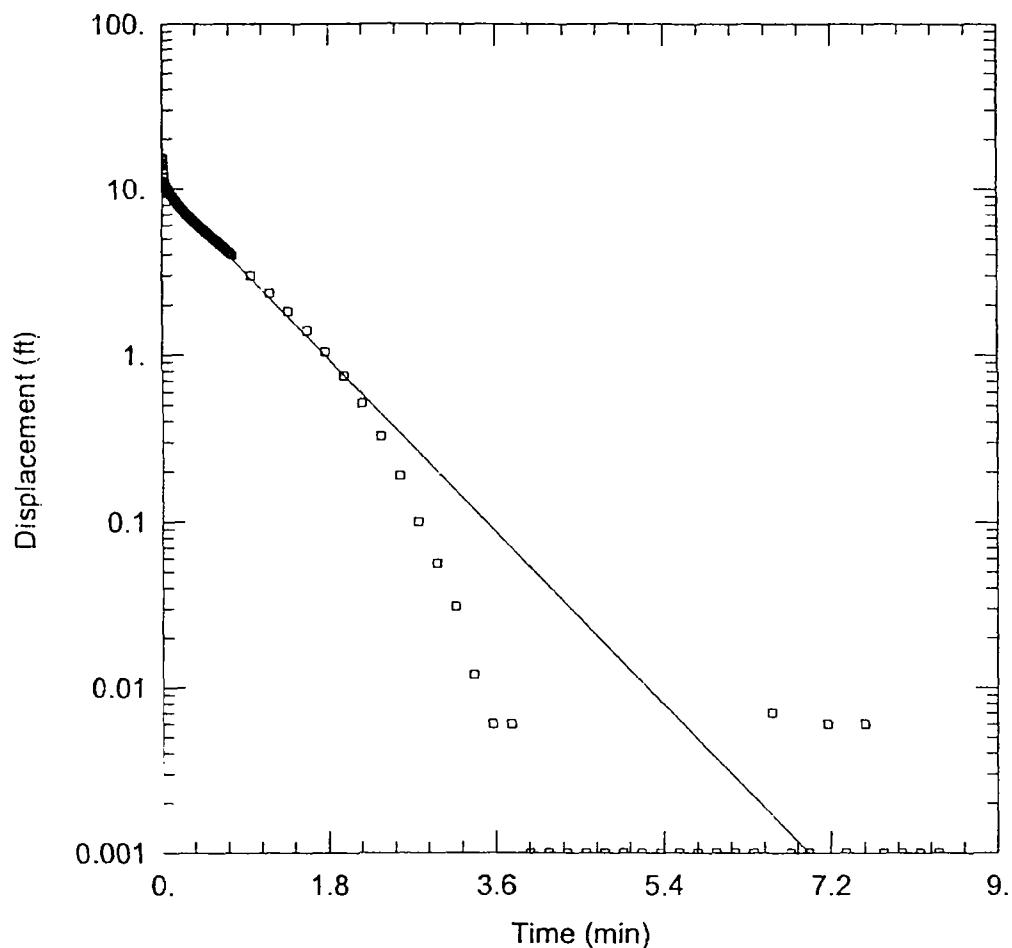
Initial Displacement: 13.12 ft
 Casing Radius: 0.08333 ft
 Screen Length: 10. ft

Water Column Height: 67.1 ft
 Wellbore Radius: 0.375 ft
 Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
 Solution Method: Bouwer-Rice

K = 181.8 ft/day
 y0 = 14.92 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWB2F.AQT
 Date: 06/26/02 Time: 20:02:06

PROJECT INFORMATION

Company: Earth Tech
 Client: Daimler Chrysler
 Test Well: MWB2F
 Test Date: 5/30/02

AQUIFER DATA

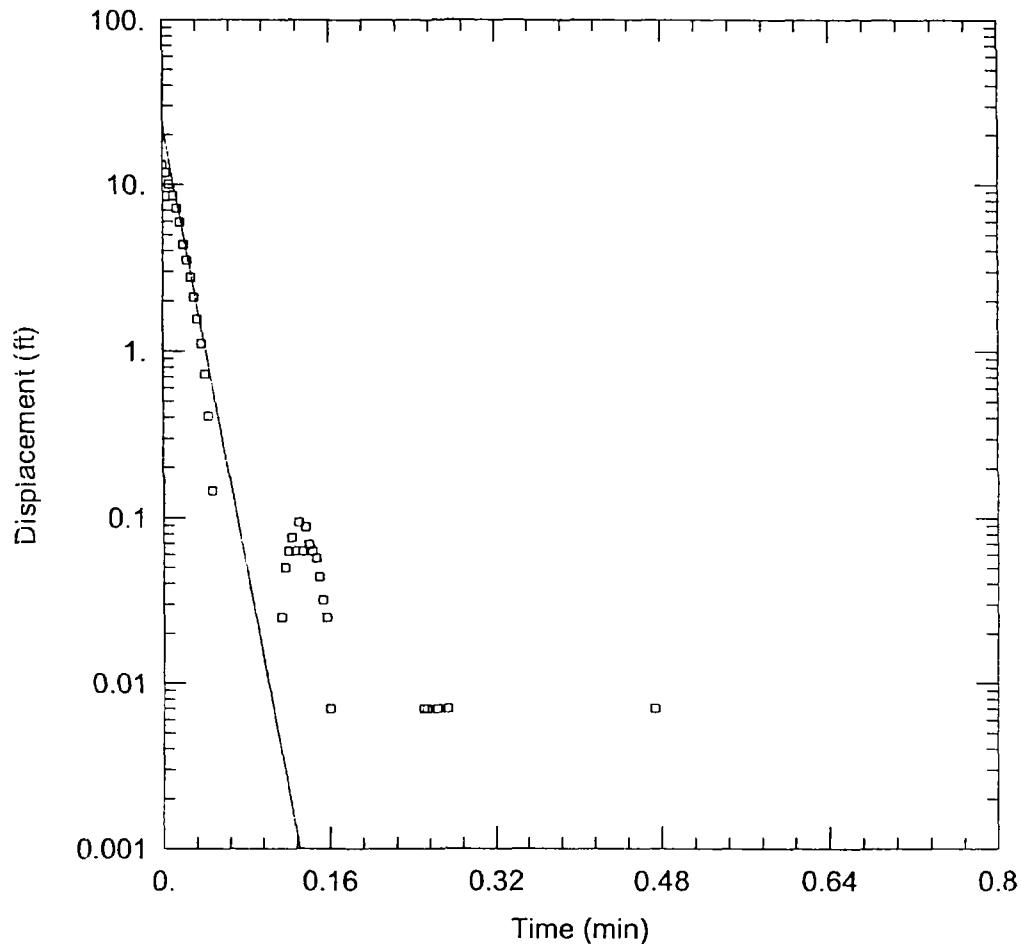
Saturated Thickness: 80 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 15.42 ft Water Column Height: 67.1 ft
 Casing Radius: 0.08333 ft Wellbore Radius: 0.375 ft
 Screen Length: 10 ft Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined $K = 17.47$ ft/day
 Solution Method: Bouwer-Rice $y_0 = 10.38$ ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWB3R.AQT
 Date: 06/26/02 Time: 20:03:05

PROJECT INFORMATION

Company: Earth Tech
 Client: Daimler Chrysler
 Test Well: MWB3R
 Test Date: 5/30/02

AQUIFER DATA

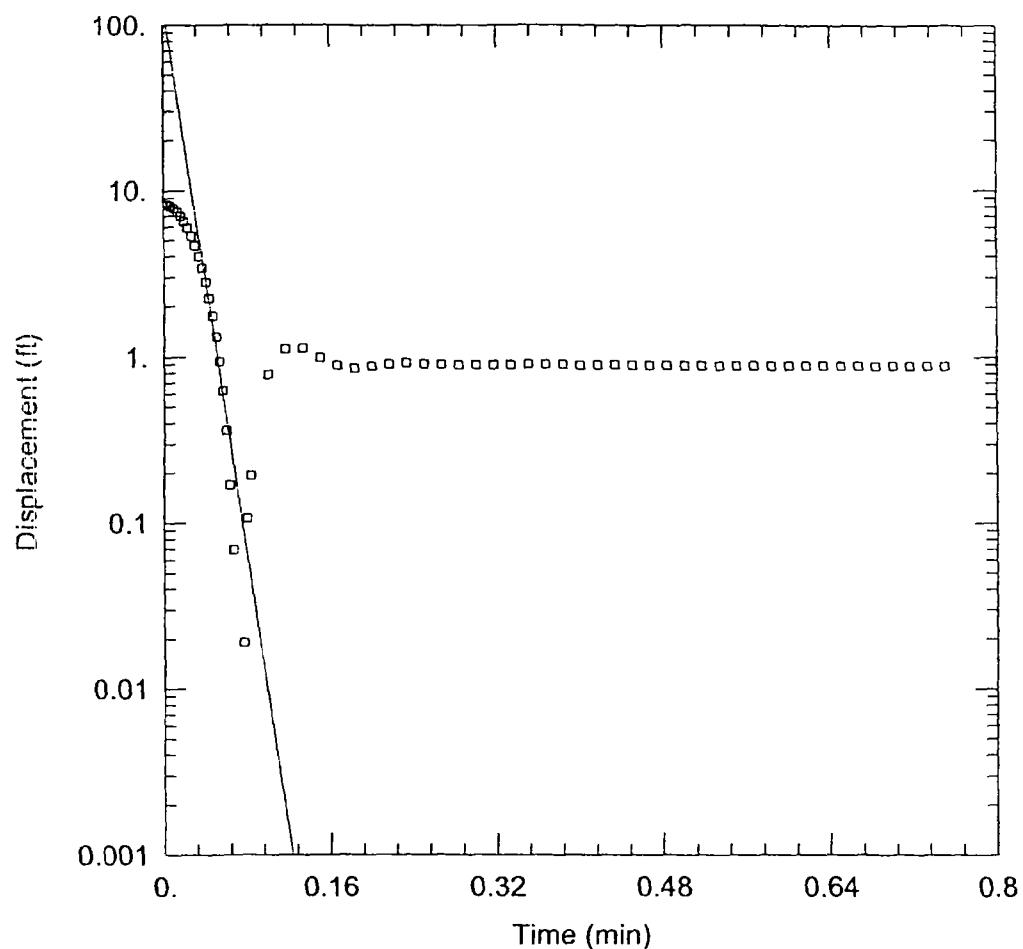
Saturated Thickness: 80. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 13.15 ft Water Column Height: 35.73 ft
 Casing Radius: 0.08333 ft Wellbore Radius: 0.375 ft
 Screen Length: 10. ft Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined
 Solution Method: Bouwer-Rice $K = 908.7$ ft/day
 $y_0 = 23.71$ ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWB3F.AQT

Date: 06/26/02

Time: 20:02:47

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: MWB3F

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 80. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 8.283 ft

Water Column Height: 35.73 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.375 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.3

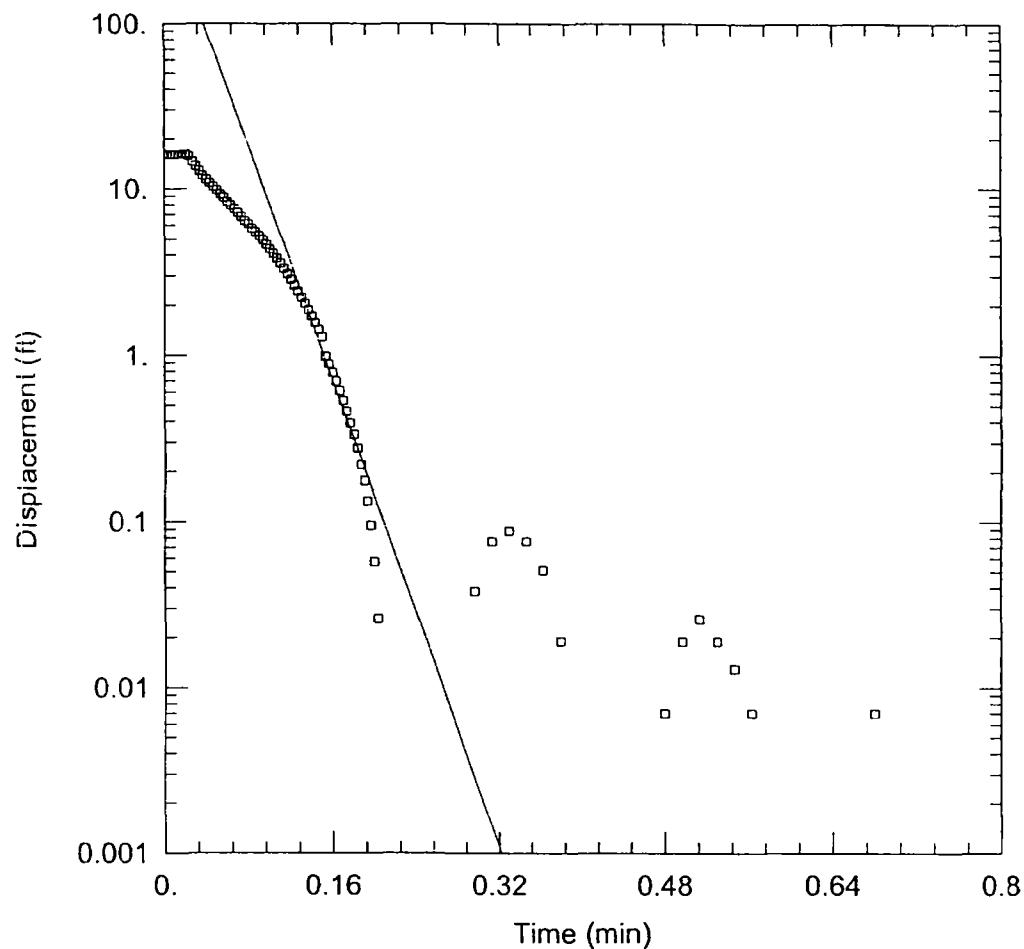
SOLUTION

Aquifer Model: Unconfined

K = 1135.8 ft/day

Solution Method: Bouwer-Rice

y0 = 137.7 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWC1R.AQT
 Date: 06/26/02 Time: 19:26:22

PROJECT INFORMATION

Company: Earth Tech
 Client: Daimler Chrysler
 Test Well: MWC1R
 Test Date: 5/30/02

AQUIFER DATA

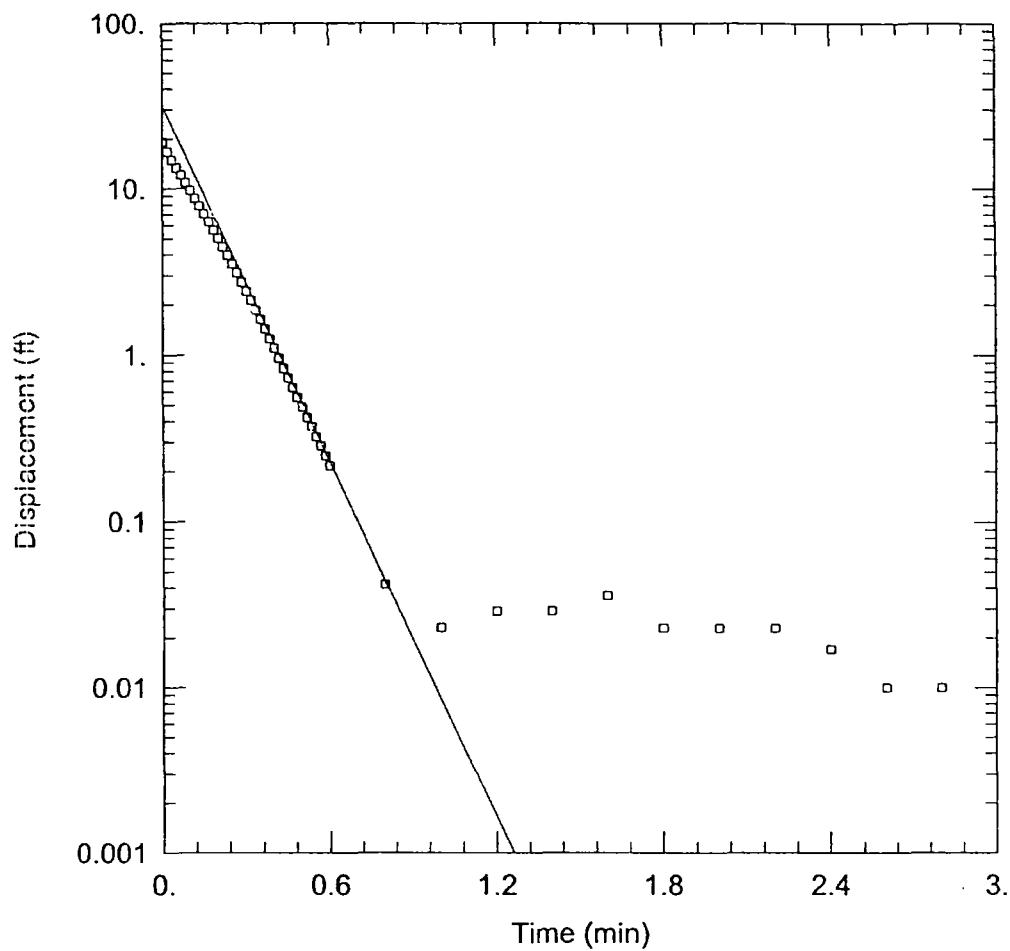
Saturated Thickness: 100. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 16.07 ft Water Column Height: 95.07 ft
 Casing Radius: 0.08333 ft Wellbore Radius: 0.375 ft
 Screen Length: 10. ft Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined K = 569.2 ft/day
 Solution Method: Bouwer-Rice y0 = 468. ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWC2F.AQT

Date: 06/26/02

Time: 19:26:53

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: MWC2F

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 19.17 ft

Water Column Height: 89.65 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.375 ft

Screen Length: 10. ft

Gravel Pack Porosity: 0.3

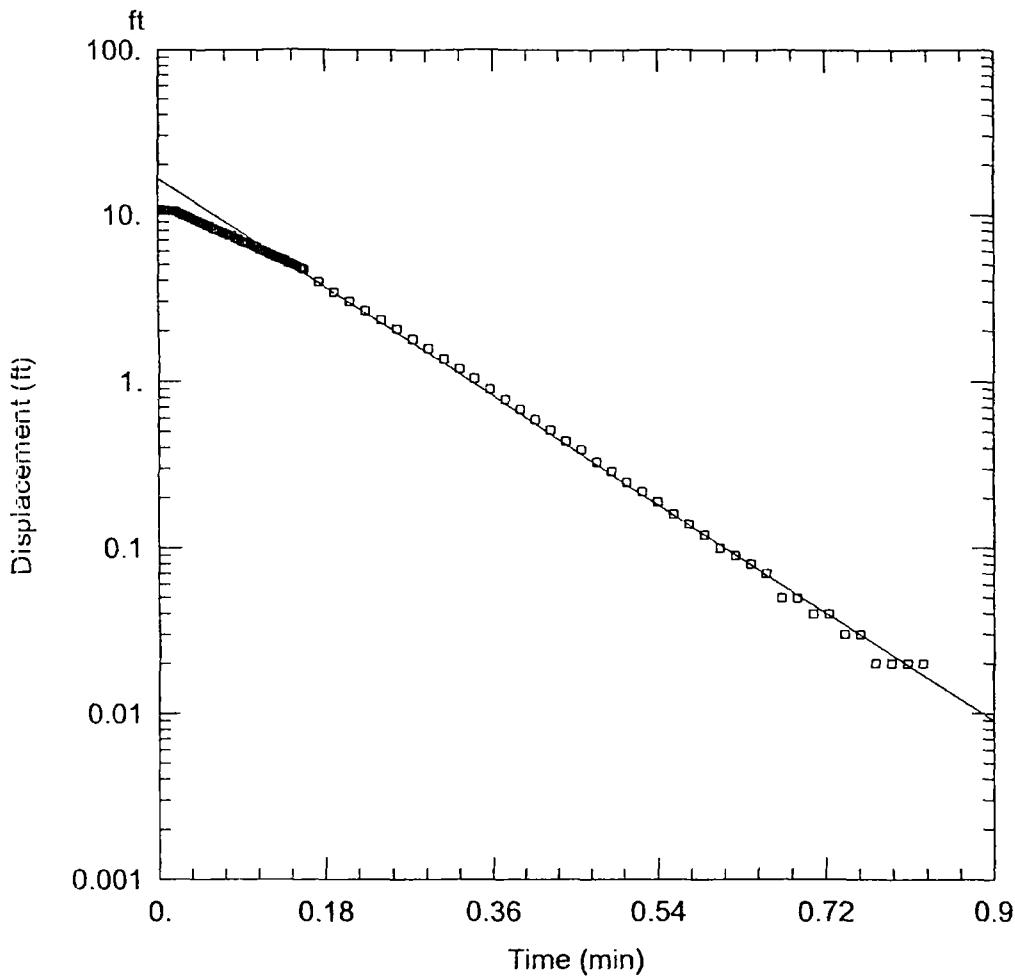
SOLUTION

Aquifer Model: Unconfined

K = 112. ft/day

Solution Method: Bouwer-Rice

y0 = 31.79 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\MWC2R.AQT

Date: 06/26/02

Time: 19:27:17

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: MWC2R

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 100. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 10.75 ft

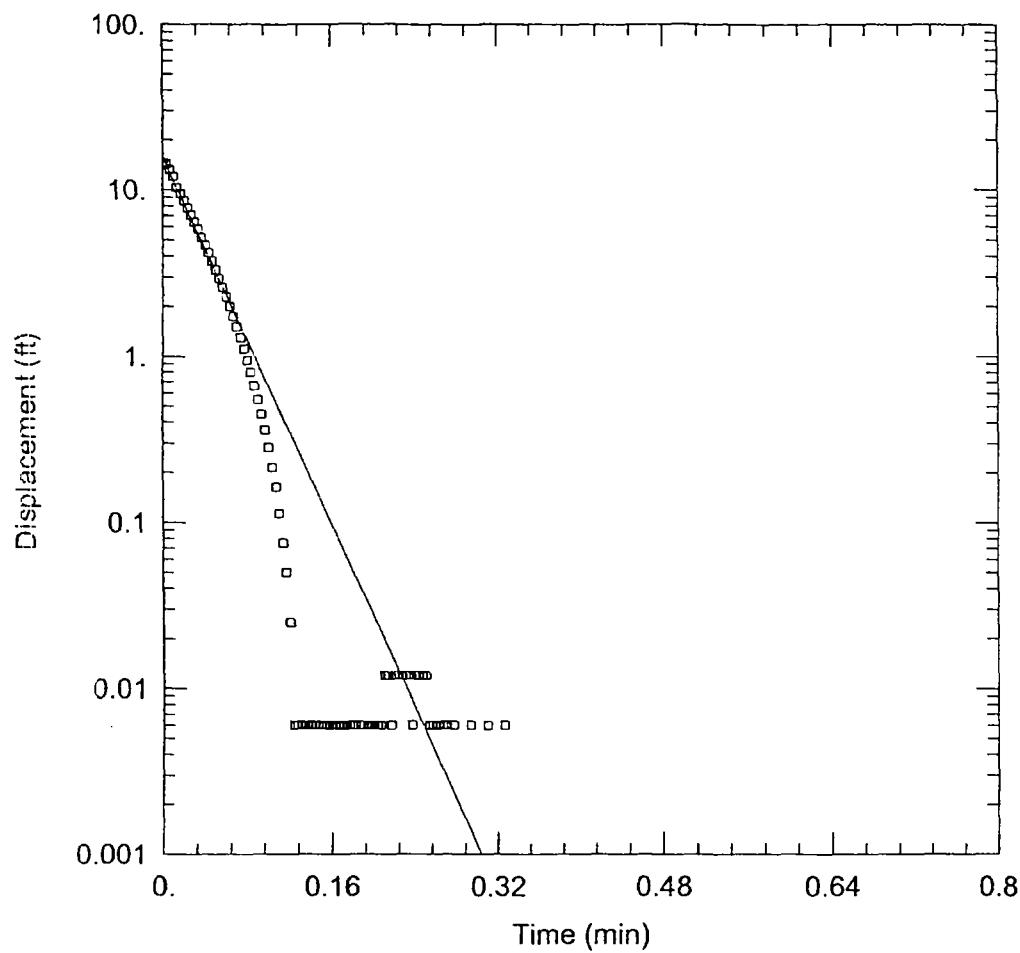
Water Column Height: 89.65 ft

Screen Length: 10. ft³³

Gravel Pack Porosity: 0.3

Solution Method: Bouwer-Rice

SOLUTION: $y_0 = 16.6 \text{ ft/day}$



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ7IR.AQT

Date: 06/26/02

Time: 20:04:07

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: PZ7IR

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 80. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 14.53 ft

Water Column Height: 36.42 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.375 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.3

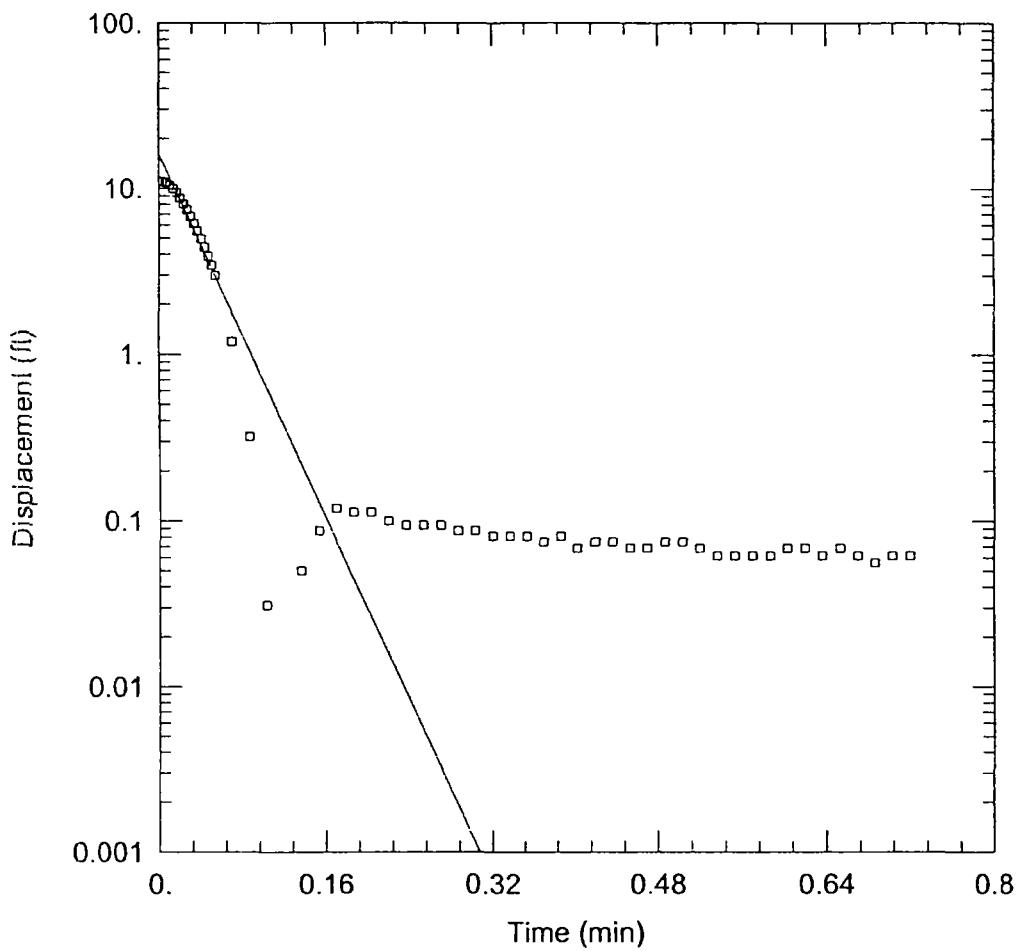
SOLUTION

Aquifer Model: Unconfined

K = 1267.1 ft/day

Solution Method: Bouwer-Rice

y0 = 15.88 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ7IF.AQT

Date: 06/26/02

Time: 19:27:48

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: PZ7IF

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 80. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 11.06 ft

Water Column Height: 36.42 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.375 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.3

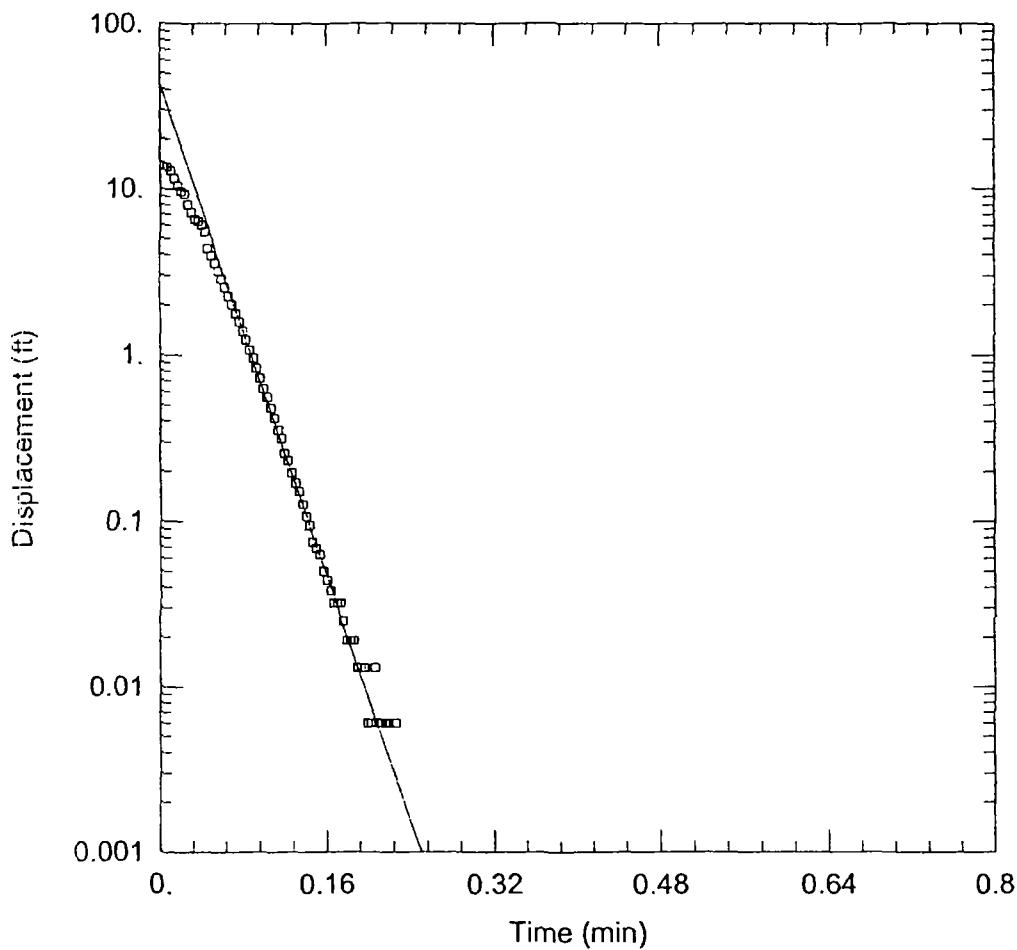
SOLUTION

Aquifer Model: Unconfined

K = 1254.9 ft/day

Solution Method: Bouwer-Rice

y0 = 16.19 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ8IR.AQT

Date: 06/26/02

Time: 20:04:38

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: PZ8IR

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 80. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 13.8 ft

Water Column Height: 19.31 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.375 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.3

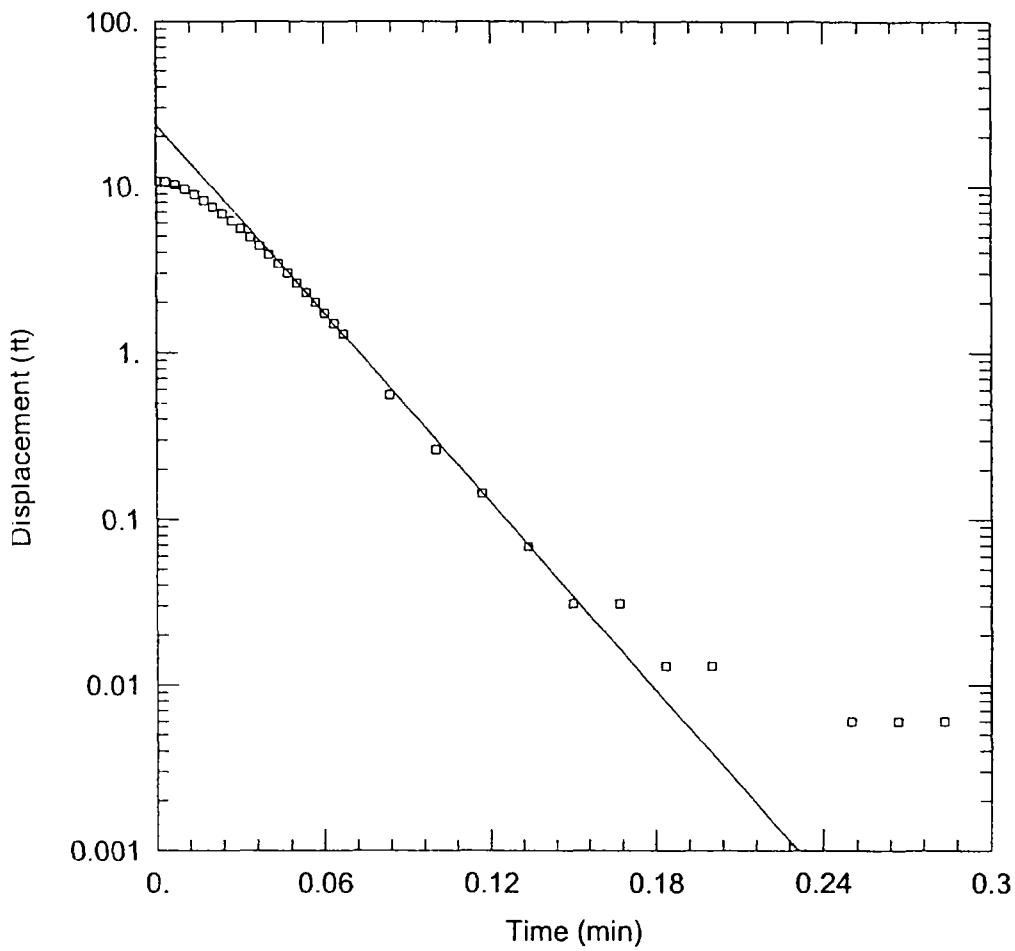
SOLUTION

Aquifer Model: Unconfined

K = 1601.8 ft/day

Solution Method: Bouwer-Rice

y0 = 43.08 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ8IF.AQT

Date: 06/26/02

Time: 19:28:53

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: PZ8IF

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 80. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 10.72 ft

Water Column Height: 19.31 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.375 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.3

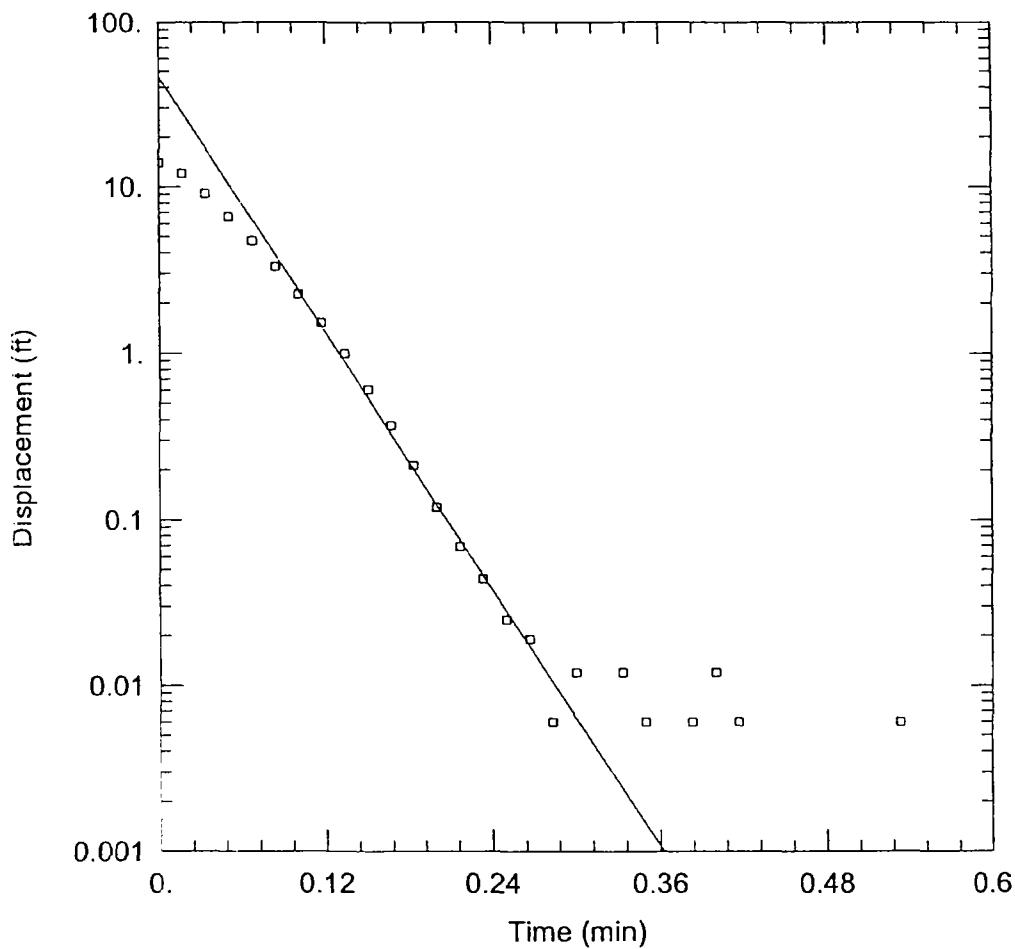
SOLUTION

Aquifer Model: Unconfined

K = 1636.4 ft/day

Solution Method: Bouwer-Rice

y0 = 23.64 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ8DF.AQT

Date: 06/26/02

Time: 19:29:11

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: PZ8DF

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 80. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 13.93 ft

Water Column Height: 60.49 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.375 ft

Screen Length: 2. ft

Gravel Pack Porosity: 0.3

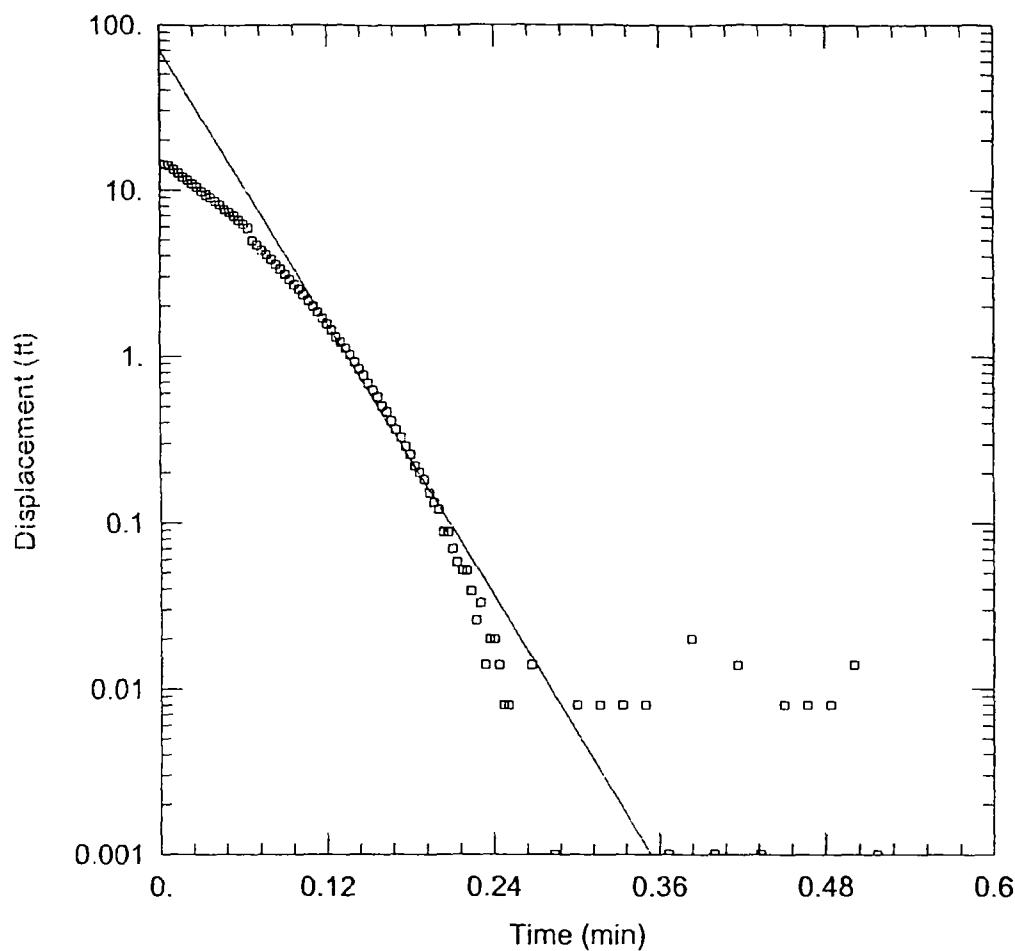
SOLUTION

Aquifer Model: Unconfined

K = 1273.1 ft/day

Solution Method: Bouwer-Rice

y0 = 46.57 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ8DR.AQT
 Date: 06/26/02 Time: 19:29:26

PROJECT INFORMATION

Company: Earth Tech
 Client: Daimler Chrysler
 Test Well: PZ8DR
 Test Date: 5/30/02

AQUIFER DATA

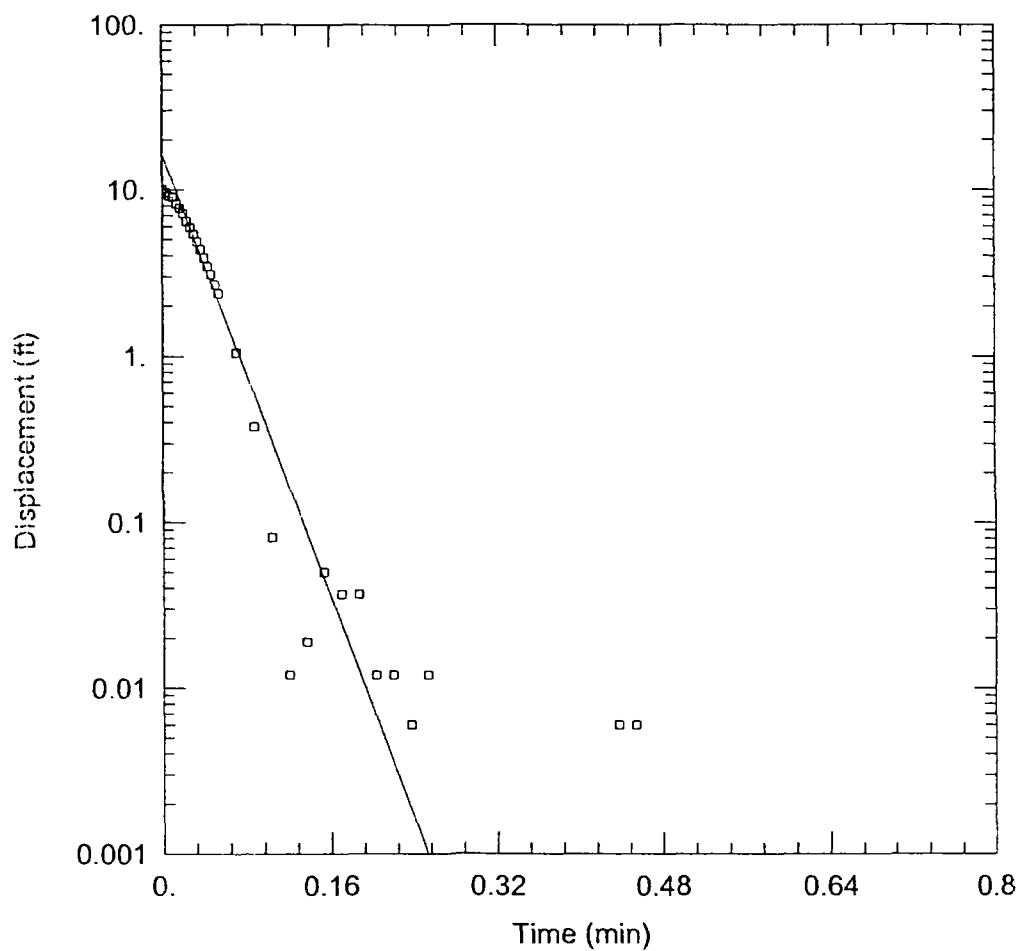
Saturated Thickness: 80. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 14.33 ft Water Column Height: 60.49 ft
 Casing Radius: 0.0833 ft Wellbore Radius: 0.375 ft
 Screen Length: 2. ft Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined $K = \underline{1354.3}$ ft/day
 Solution Method: Bouwer-Rice $y_0 = \underline{70.83}$ ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ16DF.AQT

Date: 06/26/02

Time: 19:30:21

PROJECT INFORMATION

Company: Earth Tech

Client: Daimler Chrysler

Test Well: PZ16DF

Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 85. ft

Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 10.04 ft

Water Column Height: 63.64 ft

Casing Radius: 0.08333 ft

Wellbore Radius: 0.375 ft

Screen Length: 4. ft

Gravel Pack Porosity: 0.3

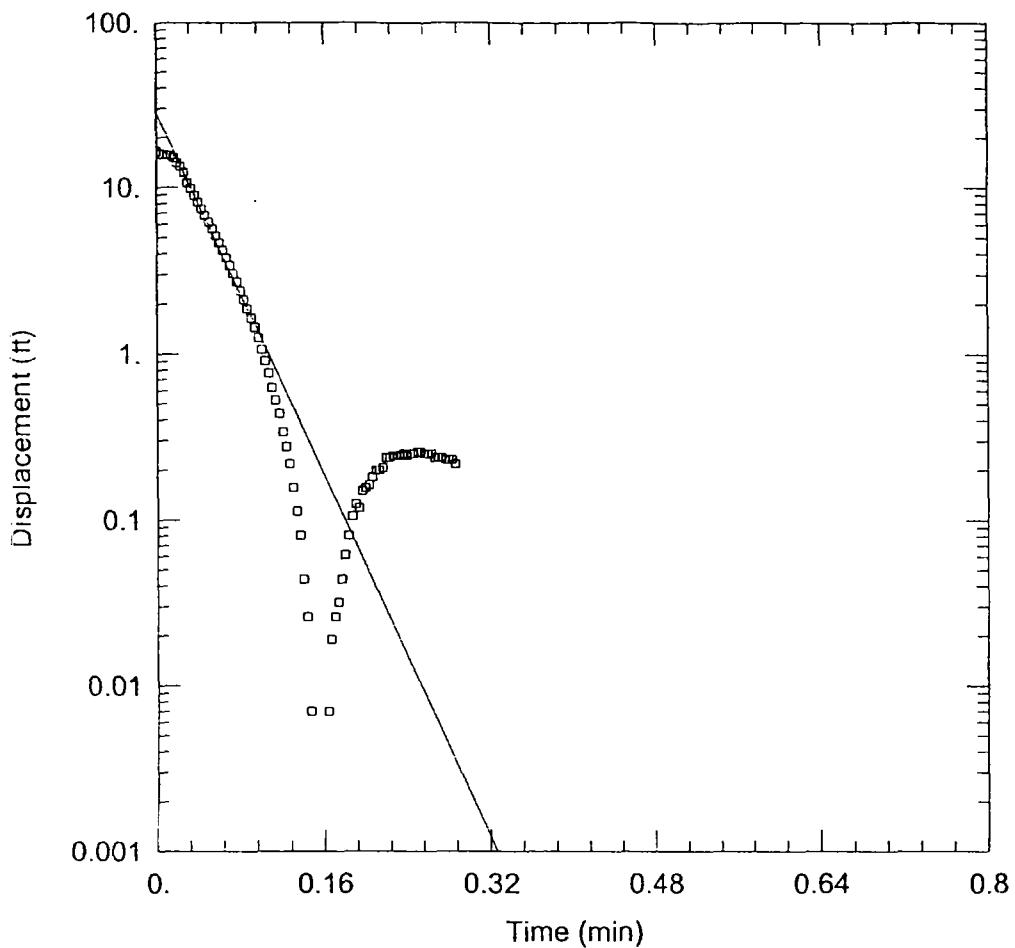
SOLUTION

Aquifer Model: Unconfined

K = 1031.5 ft/day

Solution Method: Bouwer-Rice

y0 = 16.68 ft



WELL TEST ANALYSIS

Data Set: L:\WORK\55465\PROJAD~1\SLUGTE~1\PZ16DR.AQT
 Date: 06/26/02 Time: 19:30:41

PROJECT INFORMATION

Company: Earth Tech
 Client: Daimler Chrysler
 Test Well: PZ16DR
 Test Date: 5/30/02

AQUIFER DATA

Saturated Thickness: 85. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Initial Displacement: 16.57 ft Water Column Height: 63.64 ft
 Casing Radius: 0.08333 ft Wellbore Radius: 0.375 ft
 Screen Length: 4. ft Gravel Pack Porosity: 0.3

SOLUTION

Aquifer Model: Unconfined K = 844. ft/day
 Solution Method: Bouwer-Rice y0 = 28.65 ft

Appendix B - Geochemistry Technical Memorandum

MARCH 4, 2003



T E C H M E M O

Date: July 3, 2002

To: Rob Stenson, Earth Tech
Gary Stanczuk, DaimlerChrysler

From: Paul Barnes

Subject: **Assessment of the Potential for Enhancing
Natural Attenuation Processes
Dayton Thermal Products Facility
Dayton, Ohio**

Introduction

This technical memorandum is intended to assess the potential for applying enhanced natural attenuation principles to the treatment of groundwater contaminated by tetrachloroethylene (PCE) and trichloroethylene (TCE) at the Dayton Thermal Products facility. In general, TCE contamination at the site is widespread and varies greatly in concentration while the area of PCE concentration is smaller and always co-located with TCE contamination.

Natural attenuation of TCE contamination by either aerobic cometabolism or reductive dechlorination processes is possible at some sites. Since TCE itself is a poor substrate for microbial growth, aerobic cometabolism is generally possible only in the presence of an aerobically degradable substance that allows the growth of organisms that produce a group of enzymes called monooxygenases (MOs), that can begin the degradation process by cleaving the recalcitrant TCE molecule into smaller, more degradable products. These degradation products are many and generally non-persistent, so naturally occurring aerobic cometabolism is difficult to measure directly but this type of spontaneous aerobic cometabolism has been observed on sites where co-contamination with biodegradable compounds like light petroleum hydrocarbons exists.

Reductive dechlorination, the other potential process, must also be facilitated by the presence of another readily biodegradable substrate but reductive dechlorination occurs only under anaerobic and reducing conditions. This process produces a distinct pathway of sequential dechlorination through cis-1,2-dichloroethylene (cis-DCE), vinyl chloride, and ethene, intermediates that sometimes persist long enough to be measured as evidence of reductive dechlorination. Naturally occurring reductive dechlorination is possible in the presence of a significant input of biodegradable substrate combined with persistent reducing conditions.

Either process can be initiated and/or enhanced in most aquifers, depending upon geochemical and hydraulic conditions.

PCE is less amenable to biological treatment overall and aerobic cometabolism by indigenous organisms is not generally possible. PCE must typically be addressed by reductive dechlorination, at least to remove the first chlorine and produce TCE.

Data Evaluation

To determine if any natural attenuation is occurring or has the potential to be enhanced, evaluations of historical contaminant and water level data, and newly collected transformation product and geochemistry data were conducted. This evaluation consisted of reconstructing and correlating trends in contamination and water table elevation over time, as well as considering geochemical interactions and nutrient availability.

Geochemistry

With respect to overall geochemistry, the aquifer exhibits relatively low dissolved oxygen (<1.0 mg/L) in the most contaminated (shallow) zone, which lends itself to an anaerobic approach such as reductive dechlorination. Competing electron acceptors for reductive dechlorination in the forms of iron, manganese, nitrate, and sulfate are present but in relatively low concentrations, suggesting that contaminants could be addressed efficiently without using excess substrate. pH and alkalinity are also well within reasonable working ranges and the predominance of ferrous iron over ferric iron suggests that the overall redox is at least mildly reducing. In all, geochemical conditions are amenable to a reductive dechlorination approach. Additionally, the concentrations of other electron acceptors such as ferric iron, manganese, nitrate and sulfate are clearly lower in wells where some dechlorination is indicated, confirming that reducing conditions can be developed in the redox range necessary for the reductive dechlorination process to proceed.

Evidence of Existing Dechlorination Activity

In general, while evidence of partial reductive dechlorination is present at some locations, there is substantial heterogeneity in contaminant dynamics across the site. Conditions appear to range from no apparent evidence of attenuation to very significant production of cis-DCE, an indication of reductive dechlorination. Even in locations where the production of cis-DCE is obvious, however, there is little evidence of further dechlorination to vinyl chloride and ethene and the total contaminant mass is relatively unaffected. Fluctuations up to 6 feet in groundwater elevation further confound the evaluation of attenuation because there appears to be some correlation between groundwater elevation and contaminant concentration at many locations. Additionally, there is no substantial evidence of a potential electron donor for reductive dechlorination, though there is some history of petroleum LNAPL releases in some areas and some low concentrations of total organic carbon (TOC) were measurable, though neither could be specifically correlated to observed dechlorination.

To address the difficulties of interpretation, we have selected some individual wells for detailed and separate evaluation. All were selected from the group that was recently re-sampled and they appear to represent the range of site conditions fairly well.

In general, most of the shallow wells that contain PCE or TCE also exhibit some evidence of current or historical dechlorination activity. Specifically, MW008S, MW018S, MWA002, MWA005, MWA006, PZ-012I, and PZ-013I (from among the re-sampled set) showed significant concentrations of the TCE reductive dechlorination product cis-DCE. MWA002, MWA006 and PZ-012I are discussed individually below as examples.

Well ID	Summary of Results & Interpretation
MWA002 Depth: 40'	<p>MWA002 (Figure 1) has historically had high PCE concentrations that may be positively correlated to water level. Moderate TCE concentrations may also have been correlated to water level until February of 2000, but have not rebounded from a concentration minimum (for the period considered) observed at that time. Relatively high cis-DCE concentrations were observed beginning in January 1998 and seem to be correlated to, but lagging PCE/TCE concentration change events. This significant reductive dechlorination may account for the continued decline of TCE concentrations despite increasing water levels and the corresponding increasing PCE concentration. Since 1 ug/L TCE should be dechlorinated to produce only 0.73 ug/L cis-DCE, the very high DCE concentrations observed in July and October of 1999, exceeding both the PCE and TCE concentrations, may indicate some significant dechlorination of PCE as well. This cannot be verified from the available data as groundwater elevation changes may also explain the decrease in PCE, however the PCE concentration in MWA002 has not fully rebounded to previous concentrations as groundwater elevations have returned to previous levels. MWA002 also provides some indication that the microbial population may be able to facilitate degradation beyond cis-DCE, although no vinyl chloride was observed. Peak cis-DCE concentrations did not persist, but the mechanism for its removal is unclear based upon the available data. Further evidence of biological reduction is given by concentrations of nitrate (.047(J) mg/L), and sulfate (35.3 mg/L) that are much lower than the apparent background concentrations which are probably between 2 and 6 mg/L for nitrate and between 80 and 150 mg/L for sulfate. Stimulation of reductive dechlorination in this area should be feasible, but nitrogen nutrient supplementation for bacteria stimulation may also be necessary.</p>

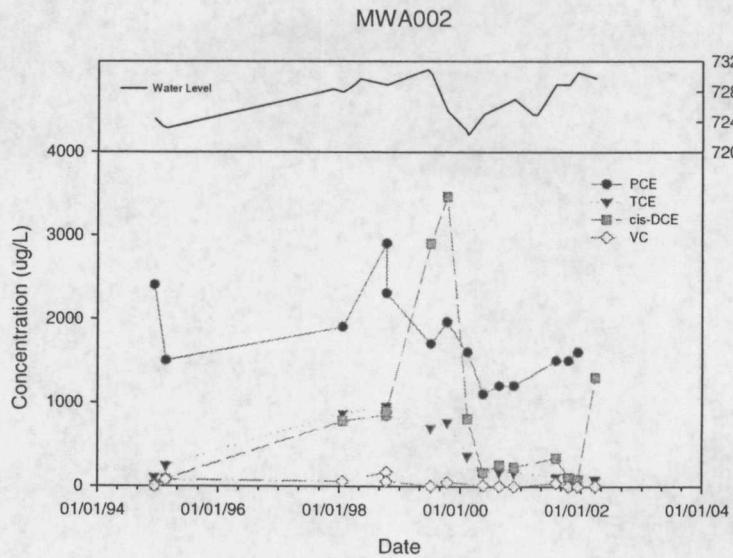


Figure 1: MWA002

Well ID

Summary of Results & Interpretation

MWA006 Depth: 40' MWA006 (Figure 2) has historically shown TCE concentrations in the 1,500 to 2,000 ug/L range that may also be correlated with groundwater elevation. A groundwater elevation low around January of 2000 corresponded to a TCE concentration low, but also with the initiation of some apparent dechlorinating activity that has continued since then. This new level of activity has apparently produced a recent sharp decline in TCE concentration and a corresponding increase in cis-DCE. Nitrate and sulfate concentrations remain relatively high and may be facilitating the process without limitation at this stage, however significant concentrations of TCE and DCE are still present. Enhancement of reductive dechlorination in this area may be possible but would likely require some nitrogen supplementation. Also, it is not clear at this point why vinyl chloride has not been observed but it may be that the high concentrations of TCE favor the kinetics of the first dechlorination step over the subsequent ones.

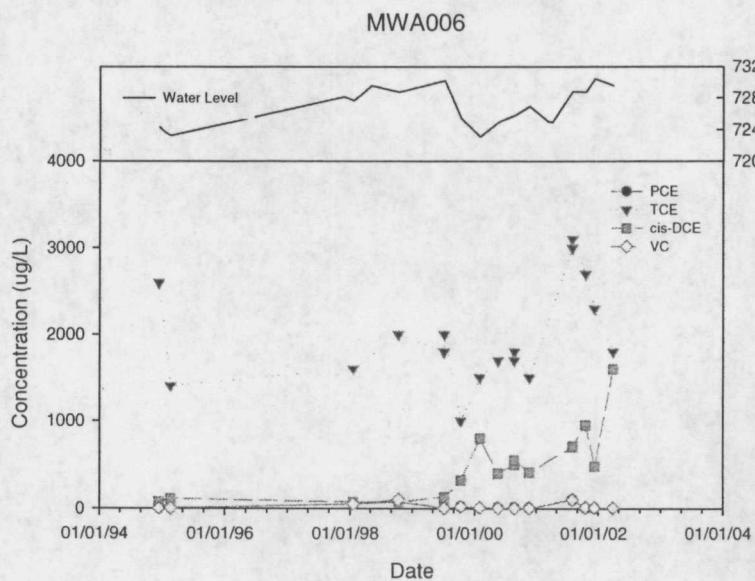


Figure 2: MWA006

Well ID

Summary of Results & Interpretation

PZ012I

Depth: 60'

PZ012I (Figure 3) is different from MWs 002 and 006 in that its contamination profile does not seem to be immediately correlated to groundwater elevation. This is interesting and suggests that the shallow groundwater may be periodically in contact with non-dissolved contaminants in the vadose zone or capillary fringe when water levels change, while deeper groundwater received contaminant input through diffusion from above. PZ012I has shown TCE concentrations as high as 2,000 ug/L, which appeared as a maximum in October 1998. Shortly after this maximum was observed the DCE concentration peaked at around 1,500 ug/L, falling back to and persisting at approximately 500 ug/L since then. After reaching its peak, the TCE concentration declined to levels around 100 ug/L and have persisted in that range. Since the peak TCE concentration does not seem to be associated with a particular hydrologic event it is unclear whether the peak TCE concentration in this area represents a real continuing source or a single release event, however it is clear that additional enhancement will be needed to reach MCLs in this area, as well as to remove the accumulated cis-DCE. Nitrogen has been depleted in this area and may be limiting the capacity for further dechlorinating activity.

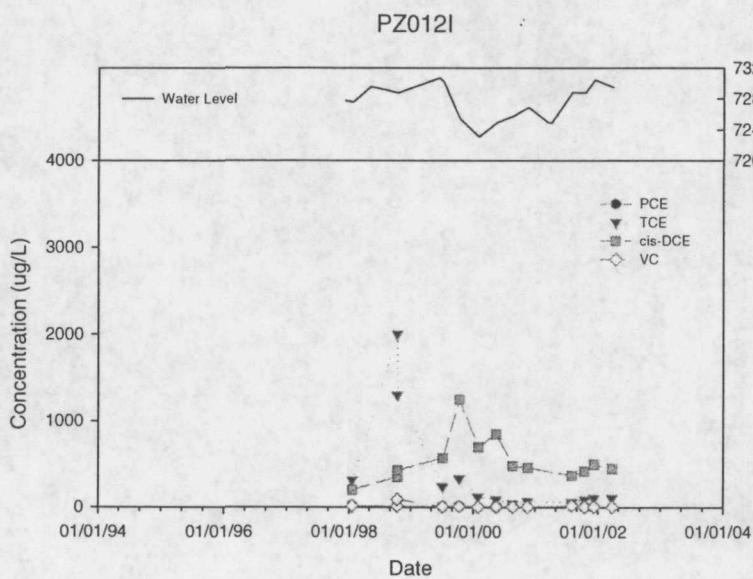


Figure 3: PZ012I

Two of the wells surveyed contained significant contamination but little or no evidence of dechlorination. PZ008I, near an apparently significant source area, and PZ037I, off-site and well separated from the primary release areas.

Well ID	Summary of Results & Interpretation
PZ008I Depth: 40'	Unlike the wells discussed above, there is very little evidence of dechlorination in PZ008I (Figure 4) despite very high concentrations of both PCE and TCE. Contaminant concentrations are not as well correlated to groundwater elevation in this area, possibly due to a much larger source of continuing contamination in the area. Nitrogen appears to be depleted here as well which may explain the lack of cis-DCE as the partial dechlorination of TCE does produce cis-DCE, but the partial dechlorination of PCE only produces more TCE. Any dechlorination potential expended on PCE in the area of PZ008I would therefore have contributed to the apparent TCE contamination and the concentrations are so high that the resulting increase in TCE concentration would likely be indistinguishable. Enhancement of reductive dechlorination in this area may be possible, but will require a large quantity of substrate and may require supplementation of nitrogen.

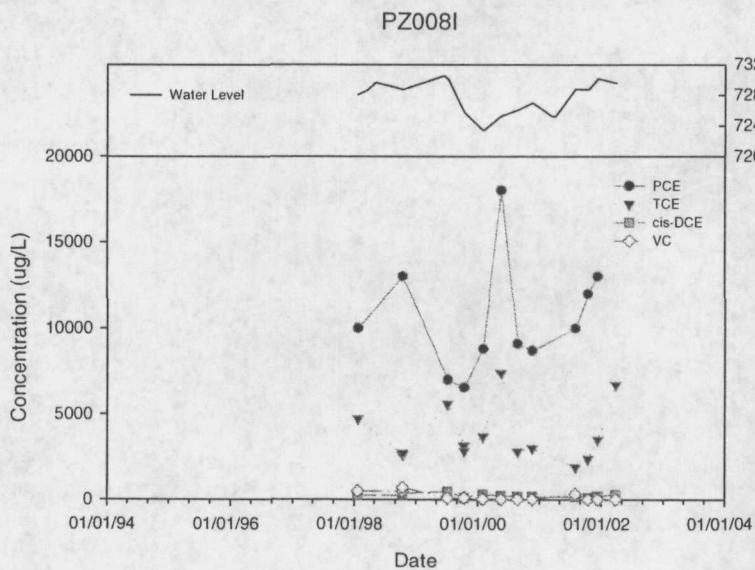


Figure 4: PZ008I

Well ID	Summary of Results & Interpretation
PZ037I Depth: 48'	No evidence of dechlorination is present in PZ037I despite TCE concentrations in the 4,000 ug/L range. Since little historical data from this location is available, no evaluation of trends can be made but, in the recent re-sample event, no available nitrogen was detected, which may suggest that nitrogen limitation prevents reductive dechlorination in that area.

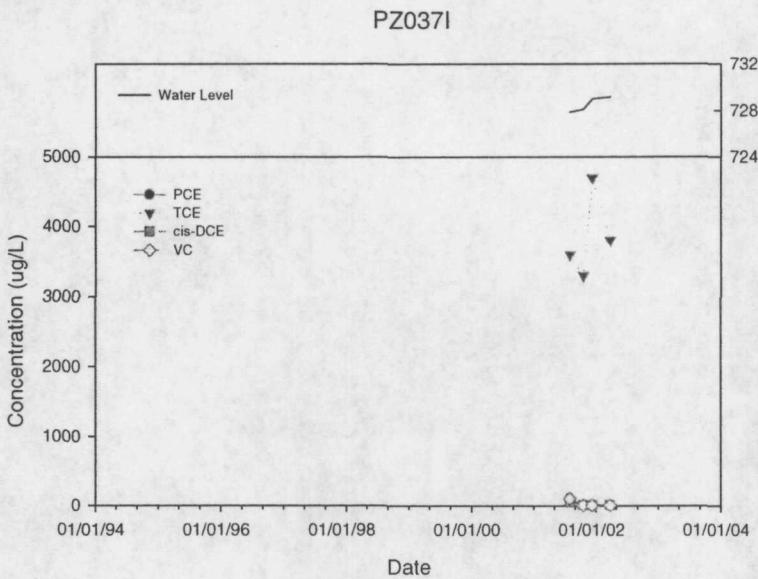


Figure 5: PZ037I

Technology Alternatives

The three primary classes of in-situ technology for remediation of groundwater contaminated by chlorinated solvents are enhanced bioremediation (subclasses discussed earlier), air sparging, and chemical oxidation. Air sparging will not be considered here as the infrastructure requirements and site logistical issues make it an undesirable option if others are available.

Chemical oxidation, consisting of the injection of a strong oxidant such as potassium permanganate, Fenton's reagent (hydrogen peroxide and ferrous iron), or ozone has been shown to be effective on chlorinated solvent contamination at some sites. The quantity of groundwater to be treated suggests that ozone treatment would be cost-prohibitive in this case and site geochemistry is less favorable for permanganate and Fenton's oxidation than might be the case at other sites. Both oxidants are most effective at low pH, as low as 4.0 to 4.5 for Fenton's reagent, which would require a substantial pH adjustment from the 6.0 to 7.8 range measured by Earth Tech. The pH adjustment would be complicated by a high natural buffer capacity. The aquifer's high alkalinity would also consume a substantial amount of any oxidant introduced, as would the naturally occurring organic matter. Other mitigating factors at this site might include the ability to deliver oxidant effectively directly to areas beneath structures and the safe handling of the large quantity of oxidant that would be needed.

In addition to these issues, Earth Tech believes chemical oxidation to be less appealing than reductive dechlorination because PCE and TCE are fundamentally recalcitrant under aerobic and mildly oxidizing conditions (without cometabolic enhancement). This suggests that any failure to completely remove contaminants by chemical oxidation would only leave the residuals in an environment that has already been shown to allow them to persist. The only solution in this case would be repeated attempts at oxidation until success is achieved which is complicated by access limitations. Alternatively, the reductive dechlorination method may also support downgradient cometabolism under aerobic conditions, and it produces degradation products that are known to be aerobically degradable. So, only the first-step dechlorination of the PCE component is required to eliminate the recalcitrant properties of the system. Once this is accomplished, even if reducing conditions were disrupted, there would still remain a possibility of degrading the remaining contaminants by another mechanism such as aerobic cometabolism (TCE) and simple aerobic heterotrophic degradation (vinyl chloride, ethene, ethane) which might be possible without any additional manipulation.

Because some difficulty in affecting in situ treatment can be expected at this type of site and because there is evidence of some naturally occurring capacity for reductive dechlorination, Earth Tech proposes the reductive dechlorination approach as a more cost-effective and logically manageable alternative. Additionally, the reductive dechlorination technology can easily be combined with the hydraulic control system for delivery of enhancements in-situ, offering an alternative to a technology such as chemical oxidation that requires a more widespread and intrusive application of reagents.

Conclusions

The available data suggests that both groundwater geochemistry and the native microbial population are suitable for at least some reductive dechlorination to occur with additional enhancement. Potential limitations seem to include a lack of available nitrogen and, possibly, a reluctance to move beyond cis-DCE. Supplementing inorganic nitrogen along with the addition of reductive dechlorination substrate can easily address nitrogen limitation and would not be excessively costly. Facilitating dechlorination beyond cis-DCE should also be possible, if more difficult, because cases of genuine limitation in this area are rare. It is more likely that the limited pool of available nitrogen, combined with limited available carbon substrate and the relatively high contaminant concentrations result in a stoichiometric limitation that halts



microbial growth before the subsequent dechlorination steps can occur extensively enough to be measured.

Given all of this, Earth Tech would tentatively propose a reductive dechlorination approach for this site, contingent upon some additional pre-design testing to verify the microbial capacity of the system to complete the dechlorination process, as well as to evaluate the extent of nutritional stress imposed by the apparent lack of available nitrogen. Specific recommendations for additional work are described in the next section.

In general, the proposed approach would fit well with any hydraulic containment approach that may be necessary to halt or reverse contaminant migration, especially if such a system includes re-injection. Implementation in a recovery and re-injection configuration would allow substantial optimization of the process for type and quantity of substrate used, supplementation of other nutrients, or even re-distribution of microbial populations from areas of good activity to areas requiring more enhancement.

Recommendations for Additional Testing and Conceptual Approach

In order to address the potential limitations identified above, Earth Tech proposes a combination of microbiological assessment and simple microcosm studies that can be performed concurrently with the implementation of the hydraulic control system. Microbiological assessment would include phospholipid-fatty acid (PLFA) and DNA analysis to determine levels of microbial biomass and community structure with specific screening for known dechlorinating organisms. Microcosm studies would include only very simple stimulation studies to verify that stimulation and/or nitrogen supplementation do, in fact, produce the desired changes in microbial activity under these geochemical conditions. Specific attention would also be paid to verifying, at least qualitatively, further dechlorination or degradation of cis-DCE to vinyl chloride to ethene. These combined efforts would be intended to provide confirmation of gross feasibility and some suggestion of initial design parameters for implementation of a phased remediation program.

Microbiological Assessment

Earth Tech proposes to take samples from six locations representative of the variety of conditions observed. The proposed locations are MWA002, MWA005, MWA006, PZ008I, PZ037I, and MW020S. PLFA analyses will be used to evaluate and compare the microbial community structures in the areas sampled to determine what range of microbiological conditions is occurring without enhancement. The same data will also be used during treatment to evaluate changes affected by any purposeful enhancement. DNA analyses will also be used to identify and enumerate organisms that are known or likely to be capable of reductive dechlorination both before and during treatment and used, in combination with the results from bench scale pilots, to optimize enhancement for those types of organisms.

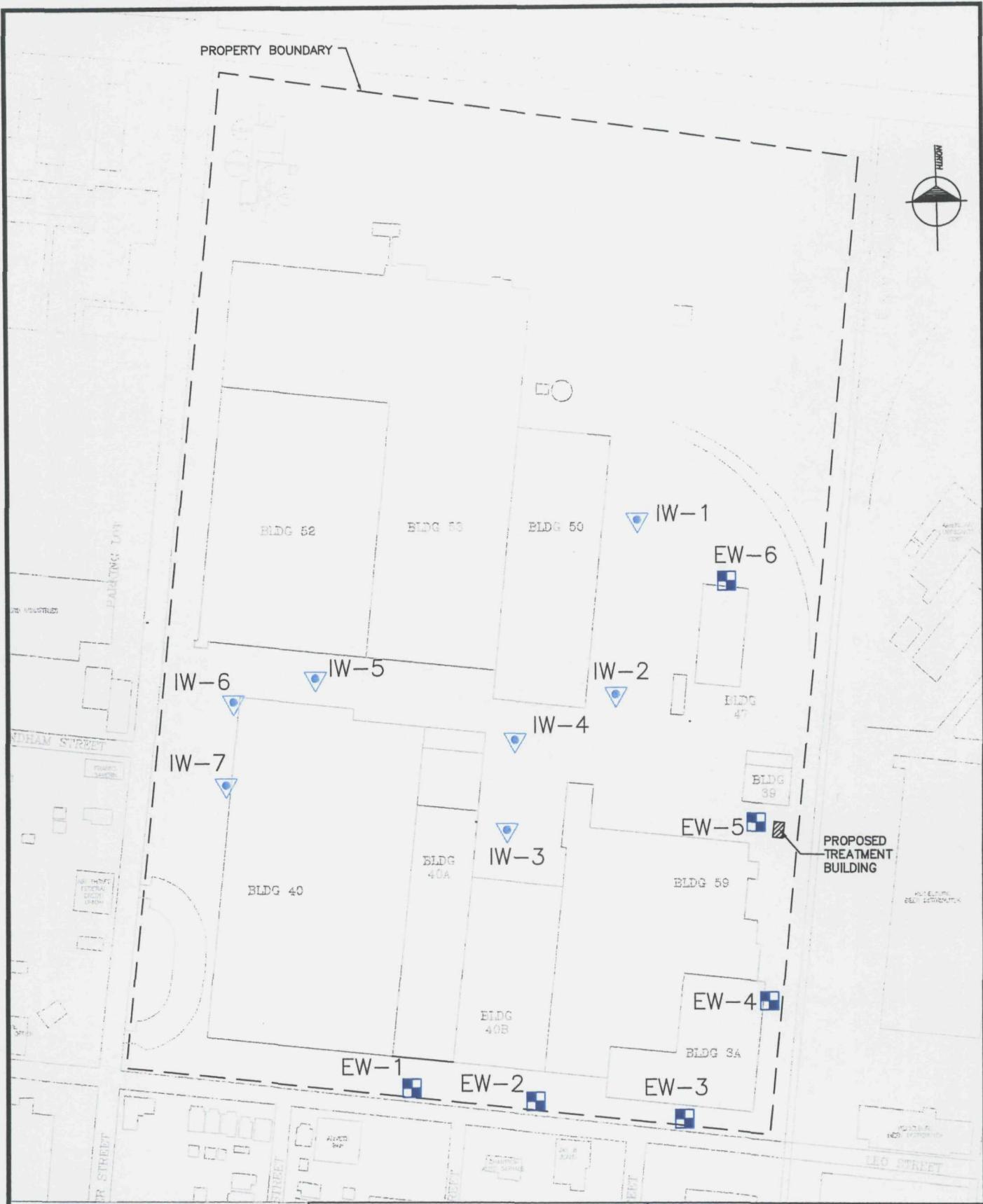
Microcosm Treatability

Microcosm studies are proposed to satisfy some simple pre-design objectives while hydraulic control is being established at the site. The studies proposed will be simple and focused very specifically on the following issues.

- I. Verify and quantify enhancement of the anaerobic biological system in the context of site-specific geochemistry.

2. Evaluate nutritional stress due to the apparent lack of nitrogen, verify that nitrogen supplementation is effective.
3. Verify the system's capacity to complete the dechlorination process.

Studies will be conducted either as static or limited-recirculation microcosms designed to simulate in-situ geochemistry by combining both solid and liquid media from the site. The specific configuration of the physical apparatus will depend upon the properties of the combined media but, in general, will consist of triplicate bioreactors for each condition tested. Each microcosm will be constructed and maintained identically throughout the study (estimated at 60 days), with the exception of the amendment scenario being tested. Measurements of pH and Oxidation Reduction Potential (ORP) would indicate the development of reducing conditions and the time for direct sampling for contaminants and microbiological characterization. At the completion of the study, comparisons of the extents of treatment and/or impacts on the microbial populations under different amendment scenarios would be used to develop baseline design values for in-situ treatment as well as control limits for process monitoring and, possibly a predictive model for treatment.


LEGEND

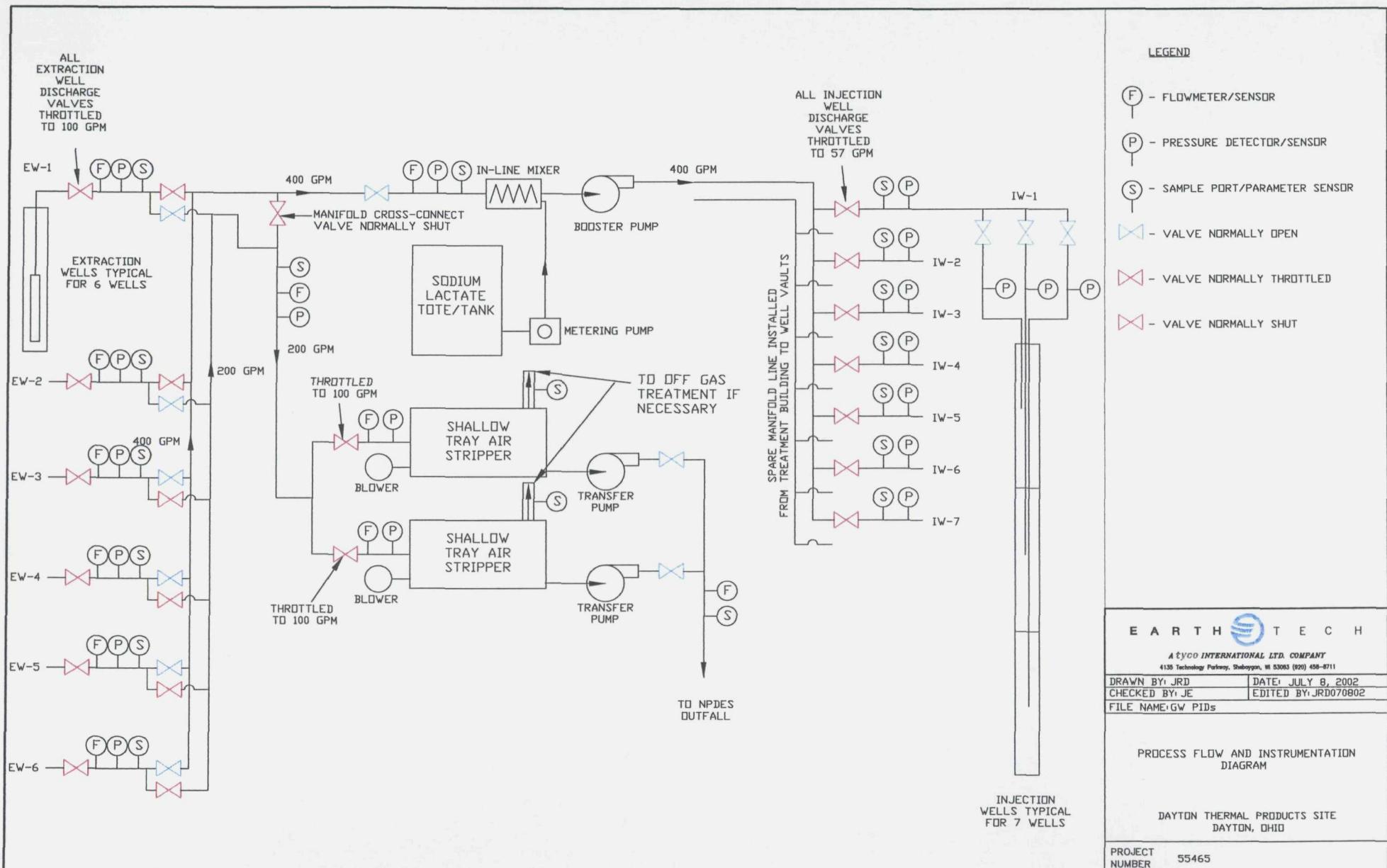
- ▽ - PROPOSED INJECTION WELLS
- - PROPOSED EXTRACTION WELLS

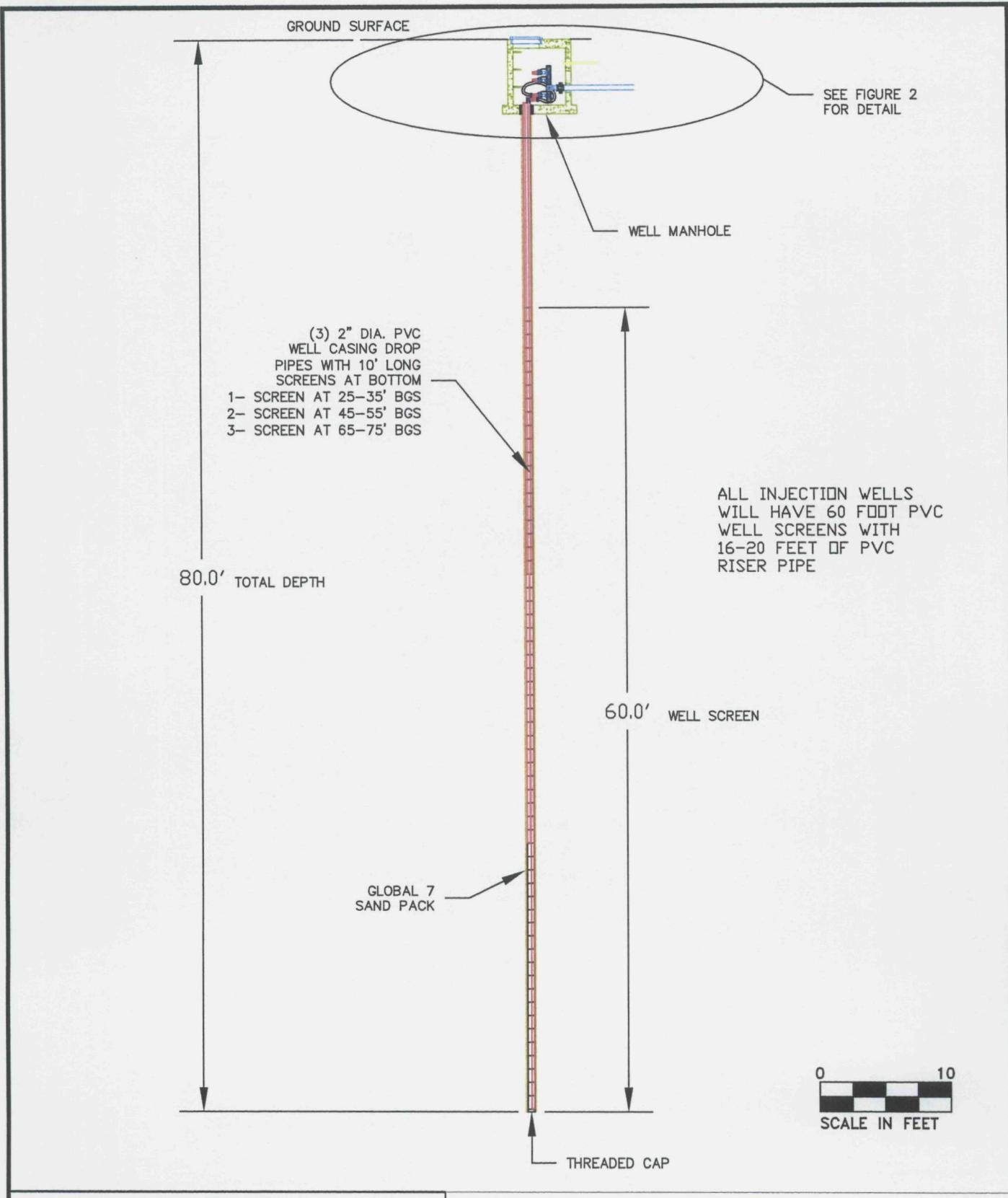
EARTH TEC H

ATYCO INTERNATIONAL LTD. COMPANY
4135 TECHNOLOGY PARKWAY, SHEBOYGAN, WISCONSIN 53083

WELL LOCATIONS
DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

DRAWN BY: JRD	EDITED BY: JRD	PROJECT NUMBER: 55465	FILE NAME:
CHECKED BY: JE	DATE: MARCH 4, 2003	SCALE: 1:250	WELLS.DWG





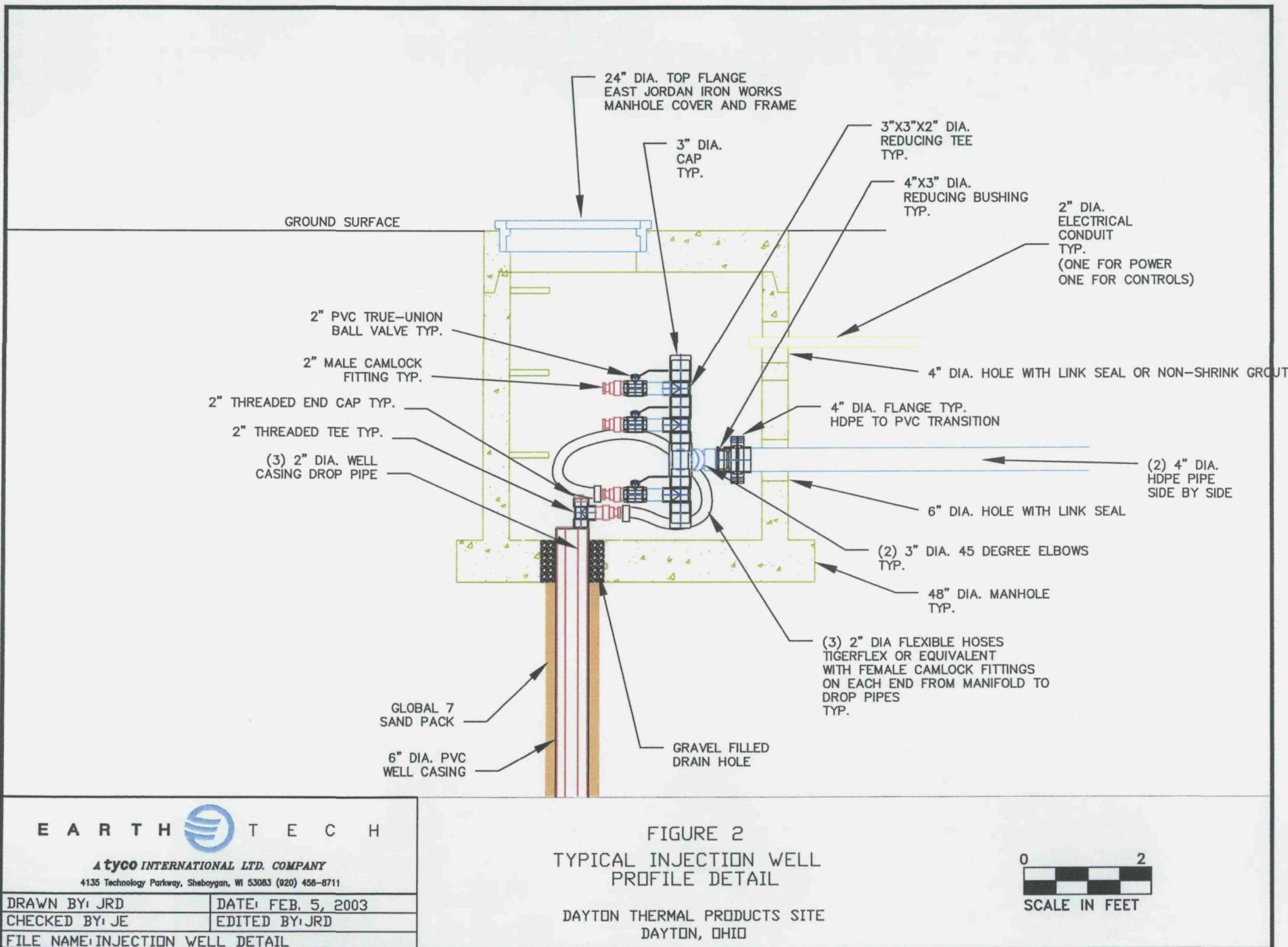
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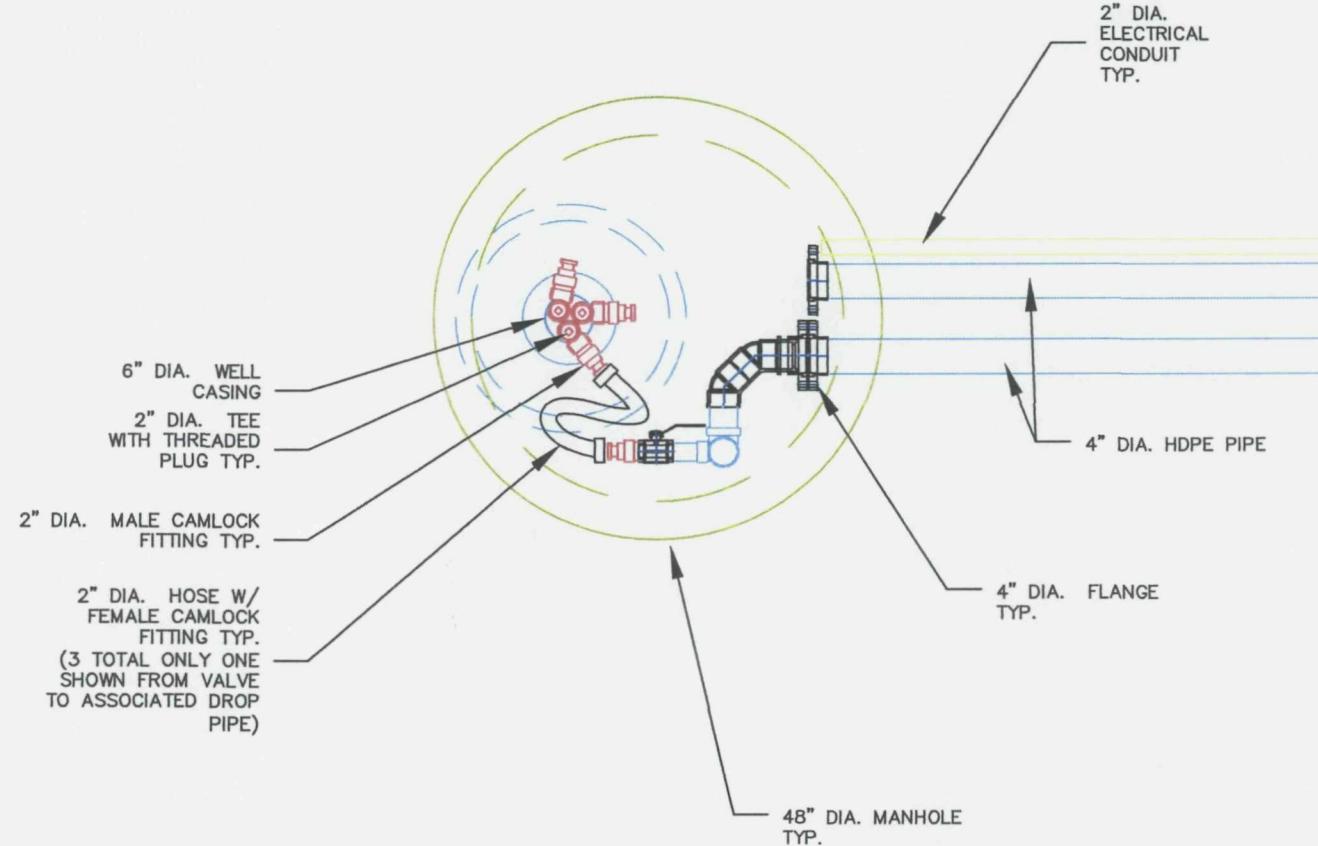
Atyco International Ltd. Company
4135 Technology Parkway, Sheboygan, WI 53083 (920) 458-8711

DRAWN BY: JRD	DATE: FEB. 5, 2003
CHECKED BY: JE	EDITED BY: JRD
FILE NAME: INJECTION WELL DETAIL	

FIGURE 1
TYPICAL INJECTION WELL CROSS-SECTION

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO





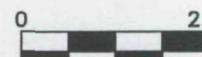
EARTH TECH

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FILE NAME: INJECTION WELL DETAIL	

FIGURE 3
TYPICAL INJECTION WELL
PLAN DETAIL

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO



SCALE IN FEET

Injection Well Estimated VOC Concentration Analysis
Dayton Thermal Products Facility
Dayton, Ohio

Introduction

The objective of this document is to estimate the relative injection stream concentration by analyzing data collected from monitoring points located in the vicinity of the proposed extraction well locations on-site.

The soil remediation approach for the Dayton Thermal Products facility consists of the construction and operation of a site wide soil vapor extraction system. This system will operate ahead of and during the operation of the proposed groundwater extraction system discussed below.

The groundwater remedial approach for the Dayton Thermal Products facility consists of the construction and operation of a groundwater containment system along the south and east property boundaries and an on-site groundwater remediation system using a combination of air stripping and in-situ reductive dechlorination technologies. The groundwater containment system design will prevent off-site migration of chlorinated volatile organic compounds (CVOCs) and establish hydraulic control of groundwater flow at the site. The reductive dechlorination technology consists of the up-gradient re-injection of groundwater augmented with sodium lactate to promote in-situ reductive dechlorination of VOCs. The reductive dechlorination will degrade the PCE, TCE, DCE, and VC to ethane and ethene. In addition, this approach will significantly reduce the timeframe for operating a conventional groundwater containment system.

An estimated groundwater extraction rate of 600 gpm (100 gpm from six extraction wells) will be required to maintain capture of the groundwater plume at the south and east property boundaries. To accommodate the dosing of the aquifer with sodium lactate, approximately 400 gpm of the groundwater will be re-injected on site into the central portion of the contaminant plume within the capture zone of the extraction wells. The re-injected groundwater is eventually recovered by the groundwater containment system, creating in effect, a closed-loop bio-reactor designed for the degradation of CVOCs. The remaining 200 gpm of groundwater removed by the extraction wells will be treated with an air stripper and discharged to the storm sewer under an NPDES permit to maintain a negative groundwater balance on-site. This document describes the methodology used to estimate the CVOC concentrations in groundwater that will be re-injected into aquifer.

MCL Exceedances

To determine the dissolved chemicals of interest for this project, the site's analytical database was used to list all chemicals that exceeded their maximum contaminant limit (MCL) for drinking water. The USEPA criteria were compared to all analytical data collected in the last four sampling events. The events occurred on August 2001, October 2001, December 2001 and March 2002. All data collected from groundwater wells and piezometers that exceeded the MCL criteria are listed in Table A attached. From this list the list of chemicals of interest were compiled. The chemicals that exceeded the MCLs during the last four sampling events are as follows:

1,1,1-Trichloroethane (MCL = 200 ug/L);
1,1-Dichloroethene (MCL = 7 ug/L);
1,2-Dichloroethane (MCL = 5 ug/L);
Carbon Tetrachloride (MCL = 5 ug/L);
Cis-1, 2-Dichloroethene (MCL = 70 ug/L);
Tetrachloroethene (MCL = 5 ug/L);
Trichloroethene (MCL = 5 ug/L); and
Vinyl Chloride (MCL = 2 ug/L).

Because these are the only compounds that exceed the MCLs for the purposes of this analysis, only these data were compiled for the estimate of injection concentrations.

Estimated Extraction Well VOC Concentrations

The groundwater re-injection CVOC concentrations are estimated based on the average concentration of groundwater in the immediate vicinity of each of the six extraction wells. The estimated concentration of groundwater removed from each of the six extraction wells has been calculated based on the laboratory analytical results from groundwater monitoring wells in close proximity to each of the proposed extraction well locations. The location of the proposed extraction and re-injection wells are presented on Figure 1. The location of the existing groundwater monitoring wells in the vicinity of the proposed extraction wells are presented on Figure 2 through 7. The well construction, well separation distance, and groundwater flow gradient information for the groundwater monitoring wells in the vicinity of the proposed extraction wells is summarized in Table 1.

Table 1: Groundwater Monitoring Well Data

Extraction Well	Adjacent Monitoring Well	Monitoring Well Screen Interval (Feet BGS)	Separation Distance (Feet)	Groundwater Flow Gradient From EW
EW-1	MW008S	19-29	17	Down
	PZ008I	53-55	7	Up
	PZ008D	77-70	50	Side
EW-2	MWA004	35-45	80	Side
	PZ009D	66-68	57	Side
	MW010S	19-29	110	Side
	PZ010I	48-50	129	Side
EW-3	MW011S	19-29	77	Side
	MWB003	46-56	101	Side
	MWC003	74-84	111	Side
EW-4	PZ012D	82-84	54	Up
	PZ012I	56-58	73	Up
	MWA006	30-40	91	Up
EW-5	PZ013I	46-48	55	Side
	MWA005	29-39	82	Side/Up
EW-6	PZ017D	82-84	177	Side
	PZ017I	56-58	168	Side
	MW018S	20-30	171	Side
	MWB002	77-87	194	Side

The laboratory analytical data for the chemicals of interest collected in the last four sampling events for each of the groundwater monitoring wells identified in Table 1 was compiled for each proposed extraction well (Tables B-F). The groundwater sampling events used for this analysis were the same evaluated for MCL exceedances above. If a value was not detected for a chemical of interest, one half of the detection limit was inserted as a "modified result" (Tables B-F) to be conservative and if the value was above the detection limit then the given value was inserted as a "modified result."

The estimated extraction well concentration for each sampling event was calculated from the modified results with all depth intervals equally weighted. If there is more than one monitoring point for a given depth interval (i.e., shallow, intermediate, or deep), the mean concentration for that depth interval was calculated first and then the overall mean was calculated using the mean for each depth interval to estimate the extraction well concentration. For each extraction well, the highest estimated concentration for each chemical of interest (from the four sampling events) was selected to establish the maximum value for each compound per extraction well. The concentrations of the chemicals of interest, modified results, estimated

concentrations for each extraction well per sampling event and maximum value of the estimated concentrations are presented in Tables B-F.

Table G provides a summary of the estimated concentrations per sample event and the estimated maximum value for each of the six-extraction wells.

Injection Concentrations

The distribution piping interconnecting the six extraction wells has been designed with two distribution header pipes and valves to allow groundwater from individual extraction wells to be routed to the re-injection wells or to storm sewer discharge via the air stripper. Each distribution header pipe has also been sized to handle the discharge from all extraction wells combined. During system operation in the latter case, the discharge from the extraction wells will go into a single header and be combined. The combined flow from the header will be split for re-injection and/or air stripping with subsequent discharge to the sewer. The planned piping configuration allows for the operator to vary what water streams are directed to the air stripper and which water streams are re-injected.

Due to these possible configurations, three combinations of the extraction well streams have been calculated to estimate the highest anticipated re-injection concentration. In all cases, the mean of the each sampling event and the maximum value concentration from each extraction well was used because the flow-rate from each well will be the same. First, a combination of the four extraction wells with the highest estimated concentrations (EW 1,2, 3 and 4) were analyzed. Next, the combination of the four extraction wells with the lowest estimated concentrations (EW 3, 4, 5 and 6) were calculated. The final combination assumes that all six of the extraction wells will be combined and part of the combined flow will be re-injected. A summary of the data for the above extraction well combinations, as well as, the maximum value of the maximum value from all combinations is shown on Table H.

The highest average concentration has been calculated by taking the maximum value for each chemical of interest from the list of the overall maximum values from each combination analyzed and shown in Table H and in Table 2 below.

Table 2: Maximum Concentrations Possible From Combinations Analyzed

Chemical of Interest	Highest Average Concentration Combined (ug/l)
1,1,1-Trichloroethane	590.7
1,1-Dichloroethene	104.6
1,2-Dichloroethane	94.3
Carbon Tetrachloride	94.3
Cis-1, 2-Dichloroethene	875.3
Tetrachloroethene	1593.5
Trichloroethene	4484.0
Vinyl Chloride	94.3

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
3/26/2002	1MW007S	1MW007S		3/28/2002	3/27/2002	79-01-6	Trichloroethene	20		7 UG/L	WATER	100	SW846 8260B	
3/26/2002	2MW018S	MW018S		3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	570		70 UG/L	WATER	21	SW846 8260B	
3/26/2002	2MW018S	MW018S		3/27/2002	3/27/2002	79-01-6	Trichloroethene	46		5 UG/L	WATER	14	SW846 8260B	
3/26/2002	2MW018S	MW018S		3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	280		200 UG/L	WATER	14	SW846 8260B	
8/2/2001	MW007S	MW007S		8/9/2001	8/3/2001	79-01-6	Trichloroethene	66		70 UG/L	WATER	9.1	SW846 8260B	
10/15/2001	MW007S	3707960	MW007S	10/22/2001	10/16/2001	79-01-6	Trichloroethene	67		5 UG/L	WATER	31	SW846 8260B	
12/10/2001	MW007S	3742417	MW007S	12/13/2001	12/11/2001	79-01-6	Trichloroethene	93		200 UG/L	WATER	31	SW846 8260B	
8/2/2001	MW008S	MW008S		8/10/2001	8/3/2001	79-01-6	Trichloroethene	440		5 UG/L	WATER	31	SW846 8260B	
8/2/2001	MW008S	MW008S		8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	1100		7 UG/L	WATER	31	SW846 8260B	
10/17/2001	MW008S	3709930	MW008S	10/24/2001	10/18/2001	127-18-4	Tetrachloroethene	1100		70 UG/L	WATER	16	SW846 8260B	
10/17/2001	MW008S	3709930	MW008S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	510		70 UG/L	WATER	420	SW846 8260B	
12/12/2001	MW008S	3744801	MW008S	12/19/2001	12/14/2001	79-01-6	Trichloroethene	430		5 UG/L	WATER	2	SW846 8260B	
12/12/2001	MW008S	3744801	MW008S	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	1000		5 UG/L	WATER	10	SW846 8260B	
3/26/2002	MW008S	MW008S		3/28/2002	3/27/2002	79-01-6	Trichloroethene	440		5 UG/L	WATER	5	SW846 8260B	
3/26/2002	MW008S	MW008S		3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	1100		5 UG/L	WATER	5	SW846 8260B	
8/2/2001	MW008S DUPLICATE	MW008S		8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	1100		2 UG/L	WATER	5	SW846 8260B	
8/2/2001	MW008S DUPLICATE	MW008S		8/10/2001	8/3/2001	79-01-6	Trichloroethene	450		2 UG/L	WATER	1	SW846 8260B	
8/2/2001	MW010S	MW010S		8/9/2001	8/3/2001	79-01-6	Trichloroethene	7200		5 UG/L	WATER	42	SW846 8260B	
8/2/2001	MW010S	MW010S		8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	1000		5 UG/L	WATER	42	SW846 8260B	
10/17/2001	MW010S	3709933	MW010S	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	9	J	70 UG/L	WATER	42	SW846 8260B	
10/17/2001	MW010S	3709933	MW010S	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	23	J	200 UG/L	WATER	100	SW846 8260B	
10/17/2001	MW010S	3709933	MW010S	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	23	J	5 UG/L	WATER	10	SW846 8260B	
10/17/2001	MW010S	3709933	MW010S	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	930		5 UG/L	WATER	25	SW846 8260B	
10/17/2001	MW010S	3709933	MW010S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	7600		7 UG/L	WATER	100	SW846 8260B	
12/12/2001	MW010S	3744805	MW010S	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	26		5 UG/L	WATER	2	SW846 8260B	
12/12/2001	MW010S	3744805	MW010S	12/19/2001	12/14/2001	79-01-6	Trichloroethene	8300		5 UG/L	WATER	100	SW846 8260B	
12/12/2001	MW010S	3744805	MW010S	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	1000		5 UG/L	WATER	830	SW846 8260B	
12/12/2001	MW010S	3744805	MW010S	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	56		200 UG/L	WATER	200	SW846 8260B	
3/27/2002	MW010S	MW010S		4/9/2002	3/28/2002	75-01-4	Vinyl chloride	43		5 UG/L	WATER	200	SW846 8260B	
3/27/2002	MW010S	MW010S		4/9/2002	3/28/2002	75-35-4	1,1-Dichloroethene	15	J	70 UG/L	WATER	100	SW846 8260B	
3/27/2002	MW010S	MW010S		4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	560		200 UG/L	WATER	25	SW846 8260B	
3/27/2002	MW010S	MW010S		4/4/2002	3/28/2002	79-01-6	Trichloroethene	5700		70 UG/L	WATER	50	SW846 8260B	
8/2/2001	MW011S	MW011S		8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	270		7 UG/L	WATER	25	SW846 8260B	
8/2/2001	MW011S	MW011S		8/9/2001	8/3/2001	79-01-6	Trichloroethene	2500		5 UG/L	WATER	330	SW846 8260B	
10/17/2001	MW011S	3709936	MW011S	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	4	J	70 UG/L	WATER	42	SW846 8260B	
10/17/2001	MW011S	3709936	MW011S	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	180		5 UG/L	WATER	1	SW846 8260B	
10/17/2001	MW011S	3709936	MW011S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	1800		5 UG/L	WATER	330	SW846 8260B	
10/17/2001	MW011S	3709936	MW011S	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	25		5 UG/L	WATER	1	SW846 8260B	
12/12/2001	MW011S	3744808	MW011S	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	11		5 UG/L	WATER	3.3	SW846 8260B	
12/12/2001	MW011S	3744808	MW011S	12/19/2001	12/14/2001	79-01-6	Trichloroethene	2200		5 UG/L	WATER	3.3	SW846 8260B	
12/12/2001	MW011S	3744808	MW011S	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	210		5 UG/L	WATER	1	SW846 8260B	
3/27/2002	MW011S	MW011S		3/30/2002	3/28/2002	75-01-4	Vinyl chloride	13		70 UG/L	WATER	12	SW846 8260B	
3/27/2002	MW011S	MW011S		4/1/2002	3/28/2002	79-01-6	Trichloroethene	1200		5 UG/L	WATER	83	SW846 8260B	
3/27/2002	MW011S	MW011S		3/30/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	150		5 UG/L	WATER	1	SW846 8260B	
10/17/2001	MW011S-DUP	3709937	MW011S	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	24		70 UG/L	WATER	5	SW-846 8260B	
10/17/2001	MW011S-DUP	3709937	MW011S	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	4	J	5 UG/L	WATER	1	SW-846 8260B	
10/17/2001	MW011S-DUP	3709937	MW011S	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	190		5 UG/L	WATER	1	SW-846 8260B	
10/17/2001	MW011S-DUP	3709937	MW011S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	1800		70 UG/L	WATER	1	SW-846 8260B	
8/2/2001	MW015S	MW015S		8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	70		5 UG/L	WATER	2	SW-846 8260B	
10/15/2001	MW015S	3707956	MW015S	10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	120		5 UG/L	WATER	1	SW-846 8260B	
12/10/2001	MW015S	3742413	MW015S	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	120		5 UG/L	WATER	1	SW-846 8260B	
3/27/2002	MW015S	MW015S		3/29/2002	3/28/2002	127-18-4	Tetrachloroethene	110		5 UG/L	WATER	1	SW-846 8260B	
3/27/2002	MW015SDUP	MW015SDUP		3/29/2002	3/28/2002	127-18-4	Tetrachloroethene	110		5 UG/L	WATER	1	SW-846 8260B	
8/2/2001	MW018S	MW018S		8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	440		2 UG/L	WATER	1	SW-846 8260B	
8/2/2001	MW018S	MW018S		8/10/2001	8/3/2001	79-01-6	Trichloroethene	46		5 UG/L	WATER	1	SW-846 8260B	
8/2/2001	MW018S	MW018S		8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	180		5 UG/L	WATER	1	SW-846 8260B	
10/15/2001	MW018S	3707939	MW018S	10/22/2001	10/16/2001	79-01-6	Trichloroethene	45		2 UG/L	WATER	1	SW-846 8260B	
10/15/2001	MW018S	3707939	MW018S	10/23/2001	10/16/2001	127-18-4	Tetrachloroethene	510		5 UG/L	WATER	1	SW-846 8260B	
12/10/2001	MW018S	3742405	MW018S	12/13/2001	12/11/2001	79-01-6	Trichloroethene	54		2 UG/L	WATER	1	SW-846 8260B	
12/10/2001	MW018S	3742405	MW018S	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	530		5 UG/L	WATER	1	SW-846 8260B	

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
12/10/2001 MW018S	3742405	MW018S	12/13/2001	12/11/2001	156-59-2	cis-1,2-Dichloroethene	150			5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MW020S	3744798	MW020S	12/18/2001	12/14/2001	79-01-6	Trichloroethene	19			5 UG/L	WATER	1	SW-846 8260B	
8/2/2001 MW021S		MW021S	8/10/2001	8/3/2001	79-01-6	Trichloroethene	10			5 UG/L	WATER	1	SW-846 8260B	
8/2/2001 MW021S		MW021S	8/10/2001	8/3/2001	75-01-4	Vinyl chloride	31			7 UG/L	WATER	1	SW-846 8260B	
8/2/2001 MW021S		MW021S	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	130			70 UG/L	WATER	1	SW-846 8260B	
8/2/2001 MW023S		MW023S	8/10/2001	8/3/2001	75-01-4	Vinyl chloride	760			5 UG/L	WATER	1	SW-846 8260B	
8/2/2001 MW023S		MW023S	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	6700			200 UG/L	WATER	2	SW-846 8260B	
10/16/2001 MW025S		MW025S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	200			5 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW025S		MW025S	10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	83			5 UG/L	WATER	1	SW-846 8260B	
12/11/2001 MW025S	3743181	MW025S	12/15/2001	12/12/2001	79-01-6	Trichloroethene	240			2 UG/L	WATER	1	SW-846 8260B	
12/11/2001 MW025S	3743181	MW025S	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	80			2 UG/L	WATER	1	SW-846 8260B	
3/25/2002 MW025S		MW025S	3/29/2002	3/27/2002	79-01-6	Trichloroethene	200			5 UG/L	WATER	5	SW-846 8260B	
10/16/2001 MW025S-DUP		MW025S-DUP	10/22/2001	10/17/2001	79-01-6	Trichloroethene	180			2 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW025S-DUP		MW025S-DUP	10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	77			5 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW026S		MW026S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	6			5 UG/L	WATER	2	SW-846 8260B	
12/11/2001 MW026S	3743179	MW026S	12/14/2001	12/12/2001	79-01-6	Trichloroethene	14			7 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW028S		MW028S	10/19/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	1100			70 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW028S	3708809	MW028S	10/19/2001	10/17/2001	75-35-4	1,1-Dichloroethene	27	J		5 UG/L	WATER	25	SW-846 8260B	
10/16/2001 MW028S	3708809	MW028S	10/19/2001	10/17/2001	75-01-4	Vinyl chloride	11	J		70 UG/L	WATER	10	SW-846 8260B	
10/16/2001 MW028S	3708809	MW028S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	8200			7 UG/L	WATER	10	SW-846 8260B	
12/11/2001 MW028S	3743173	MW028S	12/14/2001	12/12/2001	75-01-4	Vinyl chloride	10	J		2 UG/L	WATER	10	SW-846 8260B	
12/11/2001 MW028S	3743173	MW028S	12/14/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	1200			5 UG/L	WATER	5	SW-846 8260B	
12/11/2001 MW028S	3743173	MW028S	12/14/2001	12/12/2001	75-35-4	1,1-Dichloroethene	24	J		5 UG/L	WATER	5	SW-846 8260B	
12/11/2001 MW028S	3743173	MW028S	12/14/2001	12/12/2001	107-06-2	1,2-Dichloroethane	7	J		5 UG/L	WATER	1	SW-846 8260B	
12/11/2001 MW028S	3743173	MW028S	12/14/2001	12/12/2001	79-01-6	Trichloroethene	8200			5 UG/L	WATER	1	SW-846 8260B	
3/27/2002 MW028S		MW028S	4/4/2002	3/28/2002	79-01-6	Trichloroethene	10000			70 UG/L	WATER	1	SW-846 8260B	
3/27/2002 MW028S		MW028S	4/9/2002	3/28/2002	75-35-4	1,1-Dichloroethene	25	J		5 UG/L	WATER	1	SW-846 8260B	
3/27/2002 MW028S		MW028S	4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	1100			5 UG/L	WATER	10	SW-846 8260B	
10/16/2001 MW029S		MW029S	10/19/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	240			70 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW029S		MW029S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	3600			70 UG/L	WATER	1	SW-846 8260B	
12/11/2001 MW029S	3743196	MW029S	12/15/2001	12/12/2001	79-01-6	Trichloroethene	9900			5 UG/L	WATER	50	SW-846 8260B	
12/11/2001 MW029S	3743196	MW029S	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	470			70 UG/L	WATER	1	SW-846 8260B	
3/27/2002 MW029S		MW029S	4/9/2002	3/28/2002	75-01-6	Trichloroethene	110			5 UG/L	WATER	1	SW-846 8260B	
3/27/2002 MW029S		MW029S	4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	880			5 UG/L	WATER	1	SW-846 8260B	
3/27/2002 MW029S		MW029S	4/4/2002	3/28/2002	79-01-6	Trichloroethene	19000			5 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW030S		MW030S	10/19/2001	10/17/2001	79-01-6	Trichloroethene	7			5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MW030S	3744811	MW030S	12/19/2001	12/14/2001	79-01-6	Trichloroethene	27			5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MW030S	3744811	MW030S	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	12			5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MW030S/DUP		MW030S/DUP	12/19/2001	12/14/2001	79-01-6	Trichloroethene	30			5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MW030S/DUP	3744812	MW030S/DUP	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	14			2 UG/L	WATER	1	SW-846 8260B	
10/17/2001 MW032S	3709914	MW032S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	490			70 UG/L	WATER	10	SW-846 8260B	
12/11/2001 MW032S	3743202	MW032S	12/15/2001	12/12/2001	79-01-6	Trichloroethene	550			5 UG/L	WATER	1	SW-846 8260B	
3/25/2002 MW032S		MW032S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	350			5 UG/L	WATER	5	SW-846 8260B	
12/11/2001 MW032S/DUP	3743203	MW032S/DUP	12/15/2001	12/12/2001	79-01-6	Trichloroethene	530			5 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW033S	3708815	MW033S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	890			5 UG/L	WATER	10	SW-846 8260B	
10/16/2001 MW033S	3708815	MW033S	10/19/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	110			7 UG/L	WATER	1	SW-846 8260B	
12/11/2001 MW033S	3743198	MW033S	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	140			5 UG/L	WATER	1	SW-846 8260B	
12/11/2001 MW033S	3743198	MW033S	12/16/2001	12/12/2001	79-01-6	Trichloroethene	920			200 UG/L	WATER	1	SW-846 8260B	
3/25/2002 MW033S		MW033S	4/1/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	240			5 UG/L	WATER	10	SW-846 8260B	
3/25/2002 MW033S		MW033S	3/29/2002	3/27/2002	79-01-6	Trichloroethene	1400			2 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW034S	3708818	MW034S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	490			7 UG/L	WATER	1	SW-846 8260B	
12/11/2001 MW034S	3743193	MW034S	12/16/2001	12/12/2001	79-01-6	Trichloroethene	350			70 UG/L	WATER	10	SW-846 8260B	
3/25/2002 MW034S		MW034S	3/29/2002	3/27/2002	75-01-4	Vinyl chloride	3	J		5 UG/L	WATER	1	SW-846 8260B	
3/25/2002 MW034S		MW034S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	370			5 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW034S-DUP	3708819	MW034S-DUP	10/22/2001	10/17/2001	79-01-6	Trichloroethene	450			2 UG/L	WATER	3	SW-846 8260B	
10/17/2001 MW035S	3709916	MW035S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	570			5 UG/L	WATER	3	SW-846 8260B	
12/12/2001 MW035S	3744815	MW035S	12/20/2001	12/14/2001	79-01-6	Trichloroethene	500			7 UG/L	WATER	3	SW-846 8260B	
12/12/2001 MW035S	3744815	MW035S	12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	9			70 UG/L	WATER	25	SW-846 8260B	
3/25/2002 MW035S		MW035S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	460			200 UG/L	WATER	3	SW-846 8260B	
10/17/2001 MW036S	3709911	MW036S	10/24/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	150			5 UG/L	WATER	25	SW-846 8260B	

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August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL.Standard	UNITS	MATRIX	REPLIMIT	METHOD
10/17/2001 MW036S	3709911	MW036S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	1500			5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MW036S	3744823	MW036S	12/20/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	100			5 UG/L	WATER	20	SW-846 8260B	
12/12/2001 MW036S	3744823	MW036S	12/20/2001	12/14/2001	79-01-6	Trichloroethene	1400			7 UG/L	WATER	20	SW-846 8260B	
3/25/2002 MW036S		MW036S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	1700			5 UG/L	WATER	20	SW-846 8260B	
3/25/2002 MW036S		MW036S	3/29/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	140			5 UG/L	WATER	1	SW-846 8260B	
10/17/2001 MW037S	3709920	MW037S	10/23/2001	10/18/2001	79-01-6	Trichloroethene	990			200 UG/L	WATER	20	SW-846 8260B	
12/12/2001 MW037S	3744818	MW037S	12/20/2001	12/14/2001	79-01-6	Trichloroethene	65			70 UG/L	WATER	1	SW-846 8260B	
3/25/2002 MW037S		MW037S	3/29/2002	3/27/2002	79-01-6	Trichloroethene	890			5 UG/L	WATER	20	SW-846 8260B	
10/17/2001 MW038S	3709908	MW038S	10/24/2001	10/18/2001	79-01-6	Trichloroethene	660			200 UG/L	WATER	20	SW-846 8260B	
12/12/2001 MW038S	3744821	MW038S	12/20/2001	12/14/2001	79-01-6	Trichloroethene	700			5 UG/L	WATER	5	SW-846 8260B	
3/25/2002 MW038S		MW038S	4/1/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	74			70 UG/L	WATER	20	SW-846 8260B	
3/25/2002 MW038S		MW038S	4/1/2002	3/27/2002	79-01-6	Trichloroethene	830			70 UG/L	WATER	1	SW-846 8260B	
10/16/2001 MW039S	3708791	MW039S	10/22/2001	10/17/2001	79-01-6	Trichloroethene	240			5 UG/L	WATER	20	SW-846 8260B	
12/11/2001 MW039S	3743188	MW039S	12/16/2001	12/12/2001	79-01-6	Trichloroethene	270			5 UG/L	WATER	10	SW-846 8260B	
12/11/2001 MW039S	3743188	MW039S	12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	74			5 UG/L	WATER	10	SW-846 8260B	
3/27/2002 MW039S		MW039S	4/4/2002	3/28/2002	79-01-6	Trichloroethene	450			7 UG/L	WATER	1	SW-846 8260B	
10/17/2001 MWA001	3709922	MWA001	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	920			5 UG/L	WATER	5	SW-846 8260B	
10/17/2001 MWA001	3709922	MWA001	10/23/2001	10/18/2001	79-01-6	Trichloroethene	580			5 UG/L	WATER	10	SW-846 8260B	
10/17/2001 MWA001	3709922	MWA001	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	1800			7 UG/L	WATER	1	SW-846 8260B	
10/17/2001 MWA001	3709922	MWA001	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	2400			70 UG/L	WATER	1	SW-846 8260B	
10/17/2001 MWA001	3709922	MWA001	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	69			200 UG/L	WATER	10	SW-846 8260B	
12/12/2001 MWA001	3744795	MWA001	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	720			5 UG/L	WATER	10	SW-846 8260B	
12/12/2001 MWA001	3744795	MWA001	12/19/2001	12/14/2001	79-01-6	Trichloroethene	480			5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MWA001	3744795	MWA001	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	1000			5 UG/L	WATER	2	SW-846 8260B	
12/12/2001 MWA001	3744795	MWA001	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	2700			2 UG/L	WATER	2	SW-846 8260B	
12/12/2001 MWA001	3744795	MWA001	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	32			7 UG/L	WATER	2	SW-846 8260B	
3/26/2002 MWA001		MWA001	3/30/2002	3/27/2002	75-35-4	1,1-Dichloroethene	42			70 UG/L	WATER	25	SW-846 8260B	
3/26/2002 MWA001		MWA001	4/1/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	2200			7 UG/L	WATER	2	SW-846 8260B	
3/26/2002 MWA001		MWA001	4/1/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	1000			5 UG/L	WATER	25	SW-846 8260B	
3/26/2002 MWA001		MWA001	4/1/2002	3/27/2002	79-01-6	Trichloroethene	390			5 UG/L	WATER	25	SW-846 8260B	
3/26/2002 MWA001		MWA001	4/1/2002	3/27/2002	127-18-4	Tetrachloroethene	760			5 UG/L	WATER	10	SW-846 8260B	
8/2/2001 MWA002		MWA002	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	340			5 UG/L	WATER	1	SW-846 8260B	
8/2/2001 MWA002		MWA002	8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	1500			2 UG/L	WATER	5	SW-846 8260B	
8/2/2001 MWA002		MWA002	8/10/2001	8/3/2001	79-01-6	Trichloroethene	120			7 UG/L	WATER	5	SW-846 8260B	
8/2/2001 MWA002		MWA002	8/10/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	340			5 UG/L	WATER	5	SW-846 8260B	
10/17/2001 MWA002	3709925	MWA002	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	1500			70 UG/L	WATER	5	SW-846 8260B	
10/17/2001 MWA002	3709925	MWA002	10/23/2001	10/18/2001	79-01-6	Trichloroethene	120			5 UG/L	WATER	50	SW-846 8260B	
10/17/2001 MWA002	3709925	MWA002	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	270			2 UG/L	WATER	1	SW-846 8260B	
10/17/2001 MWA002	3709925	MWA002	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	110			70 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MWA002	3744799	MWA002	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	84			5 UG/L	WATER	20	SW-846 8260B	
12/12/2001 MWA002	3744799	MWA002	12/19/2001	12/14/2001	79-01-6	Trichloroethene	100			5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MWA002	3744799	MWA002	12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	1600			2 UG/L	WATER	1	SW-846 8260B	
12/12/2001 MWA002	3744799	MWA002	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	260			70 UG/L	WATER	1	SW-846 8260B	
3/26/2002 MWA002		MWA002	3/28/2002	3/27/2002	79-01-6	Trichloroethene	86			5 UG/L	WATER	20	SW-846 8260B	
3/26/2002 MWA002		MWA002	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1300			5 UG/L	WATER	20	SW-846 8260B	
3/26/2002 MWA002		MWA002	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	1600			5 UG/L	WATER	20	SW-846 8260B	
8/2/2001 MWA003		MWA003	8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	160			7 UG/L	WATER	1	SW-846 8260B	
8/2/2001 MWA003		MWA003	8/9/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	330			2 UG/L	WATER	1	SW-846 8260B	
8/2/2001 MWA003		MWA003	8/9/2001	8/3/2001	79-01-6	Trichloroethene	95			5 UG/L	WATER	100	SW-846 8260B	
8/2/2001 MWA003		MWA003	8/9/2001	8/3/2001	75-01-4	Vinyl chloride	14			70 UG/L	WATER	10	SW-846 8260B	
8/2/2001 MWA003		MWA003	8/9/2001	8/3/2001	75-35-4	1,1-Dichloroethene	43			2 UG/L	WATER	10	SW-846 8260B	
8/2/2001 MWA003		MWA003	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	200			5 UG/L	WATER	1	SW-846 8260B	
10/15/2001 MWA003	3707949	MWA003	10/23/2001	10/16/2001	79-01-6	Trichloroethene	110			5 UG/L	WATER	1	SW-846 8260B	
10/15/2001 MWA003	3707949	MWA003	10/23/2001	10/16/2001	75-35-4	1,1-Dichloroethene	17			5 UG/L	WATER	1	SW-846 8260B	
10/15/2001 MWA003	3707949	MWA003	10/23/2001	10/16/2001	156-59-2	cis-1,2-Dichloroethene	140			70 UG/L	WATER	1	SW-846 8260B	
10/15/2001 MWA003	3707949	MWA003	10/23/2001	10/16/2001	71-55-6	1,1,1-Trichloroethane	280			2 UG/L	WATER	1	SW-846 8260B	
10/15/2001 MWA003	3707949	MWA003	10/23/2001	10/16/2001	127-18-4	Tetrachloroethene	130			5 UG/L	WATER	100	SW-846 8260B	
10/15/2001 MWA003	3707949	MWA003	10/23/2001	10/16/2001	75-01-4	Vinyl chloride	7			5 UG/L	WATER	10	SW-846 8260B	
12/10/2001 MWA003	3742409	MWA003	12/13/2001	12/11/2001	79-01-6	Trichloroethene	130			70 UG/L	WATER	10	SW-846 8260B	
12/10/2001 MWA003	3742409	MWA003	12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	150			5 UG/L	WATER	1	SW-846 8260B	

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	71-55-6	1,1,1-Trichloroethane	250		7 UGL	WATER	10	SW-846 8260B	
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	156-59-2	cis-1,2-Dichloroethene	110		5 UGL	WATER	1	SW-846 8260B	
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	75-35-4	1,1-Dichloroethene	12		2 UGL	WATER	2	SW-846 8260B	
12/10/2001	MWA003	3742409	MWA003	12/13/2001	12/11/2001	75-01-4	Vinyl chloride	6		2 UGL	WATER	20	SW-846 8260B	
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	1100		5 UGL	WATER	20	SW-846 8260B	
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	79-01-6	Trichloroethene	250		70 UGL	WATER	2	SW-846 8260B	
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	490		5 UGL	WATER	10	SW-846 8260B	
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	280		70 UGL	WATER	1	SW-846 8260B	
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	75-01-4	Vinyl chloride	16		70 UGL	WATER	1	SW-846 8260B	
3/26/2002	MWA003		MWA003	3/28/2002	3/27/2002	75-35-4	1,1-Dichloroethene	130		5 UGL	WATER	1	SW-846 8260B	
8/2/2001	MWA004		MWA004	8/10/2001	8/3/2001	79-01-6	Trichloroethene	25000		200 UGL	WATER	10	SW-846 8260B	
8/2/2001	MWA004		MWA004	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	5400		5 UGL	WATER	1	SW-846 8260B	
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	47	J	5 UGL	WATER	20	SW-846 8260B	
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	27	J	5 UGL	WATER	1	SW-846 8260B	
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	1100		5 UGL	WATER	10	SW-846 8260B	
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	5100		5 UGL	WATER	10	SW-846 8260B	
10/17/2001	MWA004	3709932	MWA004	10/23/2001	10/18/2001	79-01-6	Trichloroethene	26000		5 UGL	WATER	1	SW-846 8260B	
12/12/2001	MWA004	3744804	MWA004	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	1100		5 UGL	WATER	25	SW-846 8260B	
12/12/2001	MWA004	3744804	MWA004	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	4000		5 UGL	WATER	20	SW-846 8260B	
12/12/2001	MWA004	3744804	MWA004	12/19/2001	12/14/2001	79-01-6	Trichloroethene	27000		70 UGL	WATER	20	SW-846 8260B	
3/26/2002	MWA004		MWA004	3/29/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	5500		5 UGL	WATER	1	SW-846 8260B	
3/26/2002	MWA004		MWA004	3/29/2002	3/27/2002	79-01-6	Trichloroethene	24000		200 UGL	WATER	20	SW-846 8260B	
3/26/2002	MWA004		MWA004	3/29/2002	3/27/2002	75-35-4	1,1-Dichloroethene	41	J	5 UGL	WATER	1	SW-846 8260B	
3/26/2002	MWA004		MWA004	3/29/2002	3/27/2002	75-01-4	Vinyl chloride	490		70 UGL	WATER	1	SW-846 8260B	
8/2/2001	MWA005		MWA005	8/10/2001	8/3/2001	75-35-4	1,1-Dichloroethene	340		5 UGL	WATER	1	SW-846 8260B	
8/2/2001	MWA005		MWA005	8/10/2001	8/3/2001	79-01-6	Trichloroethene	1700		5 UGL	WATER	1	SW-846 8260B	
8/2/2001	MWA005		MWA005	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	150		5 UGL	WATER	1	SW-846 8260B	
8/2/2001	MWA005		MWA005	8/10/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	2600		200 UGL	WATER	20	SW-846 8260B	
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	79-01-6	Trichloroethene	1500		70 UGL	WATER	1	SW-846 8260B	
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	85		7 UGL	WATER	20	SW-846 8260B	
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	107-06-2	1,2-Dichloroethane	6		5 UGL	WATER	20	SW-846 8260B	
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	1900		5 UGL	WATER	100	SW-846 8260B	
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	170		7 UGL	WATER	20	SW-846 8260B	
10/17/2001	MWA005	3709923	MWA005	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	300		70 UGL	WATER	50	SW-846 8260B	
12/12/2001	MWA005	3744793	MWA005	12/18/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	160		200 UGL	WATER	20	SW-846 8260B	
12/12/2001	MWA005	3744793	MWA005	12/18/2001	12/14/2001	75-35-4	1,1-Dichloroethene	340		70 UGL	WATER	1	SW-846 8260B	
12/12/2001	MWA005	3744793	MWA005	12/18/2001	12/14/2001	127-18-4	Tetrachloroethene	68		7 UGL	WATER	1	SW-846 8260B	
12/12/2001	MWA005	3744793	MWA005	12/19/2001	12/14/2001	79-01-6	Trichloroethene	1600		2 UGL	WATER	1	SW-846 8260B	
12/12/2001	MWA005	3744793	MWA005	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	2000		5 UGL	WATER	5	SW-846 8260B	
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	150		5 UGL	WATER	50	SW-846 8260B	
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	75-35-4	1,1-Dichloroethene	330		200 UGL	WATER	5	SW-846 8260B	
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	83		5 UGL	WATER	2	SW-846 8260B	
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	79-01-6	Trichloroethene	1500		7 UGL	WATER	5	SW-846 8260B	
3/26/2002	MWA005		MWA005	3/28/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	1900		2 UGL	WATER	5	SW-846 8260B	
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	79-01-6	Trichloroethene	1600		5 UGL	WATER	25	SW-846 8260B	
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	107-06-2	1,2-Dichloroethane	6		200 UGL	WATER	2	SW-846 8260B	
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	2200		70 UGL	WATER	25	SW-846 8260B	
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	170		5 UGL	WATER	5	SW-846 8260B	
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	83		70 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWA005-DUP	3709924	MWA005	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	340		5 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWA006		MWA006	8/9/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	540		5 UGL	GROUNDWA	5	SW-846 8260B	
8/2/2001	MWA006		MWA006	8/9/2001	8/3/2001	79-01-6	Trichloroethene	3000		5 UGL	GROUNDWA	4	SW-846 8260B	
8/2/2001	MWA006		MWA006	8/9/2001	8/3/2001	75-35-4	1,1-Dichloroethene	110		70 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWA006		MWA006	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	700		5 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	130		5 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	10	J	2 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	6	J	5 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	79-01-6	Trichloroethene	2700		5 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	580		5 UGL	GROUNDWA	1	SW-846 8260B	

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SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
10/17/2001	MWA006	3709928	MWA006	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	950		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	79-01-6	Trichloroethene	2300		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	540		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	480		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	140		2 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWA006	3744794	MWA006	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	8	J	5 UGL	GROUNDWA	1	SW-846 8260B	
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	75-35-4	1,1-Dichloroethene	120		5 UGL	GROUNDWA	1	SW-846 8260B	
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	1600		5 UGL	GROUNDWA	1	SW-846 8260B	
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	71-55-6	1,1,1-Trichloroethane	340		200 UGL	GROUNDWA	1	SW-846 8260B	
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	79-01-6	Trichloroethene	1800		5 UGL	GROUNDWA	1	SW-846 8260B	
3/27/2002	MWA006		MWA006	4/1/2002	3/28/2002	75-01-4	Vinyl chloride	5	J	70 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWA006 DUPLICATE		MWA006	8/9/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	560		7 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWA006 DUPLICATE		MWA006	8/9/2001	8/3/2001	75-35-4	1,1-Dichloroethene	120		2 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWA006 DUPLICATE		MWA006	8/9/2001	8/3/2001	79-01-6	Trichloroethene	3100		2 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWA006 DUPLICATE		MWA006	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	710		2 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWB003		MWB003	8/9/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	290		70 UGL	GROUNDWA	5	SW-846 8260B	
8/2/2001	MWB003		MWB003	8/9/2001	8/3/2001	79-01-6	Trichloroethene	7200		5 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWB003		MWB003	8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	2100		7 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	2000		5 UGL	GROUNDWA	10	SW-846 8260B	
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	60		70 UGL	GROUNDWA	10	SW-846 8260B	
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	79-01-6	Trichloroethene	6800		2 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	300		70 UGL	GROUNDWA	5	SW-846 8260B	
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	69		5 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	25		7 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWB003	3709935	MWB003	10/23/2001	10/18/2001	107-06-2	1,2-Dichloroethane	50		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	79-01-6	Trichloroethene	6800		200 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	107-06-2	1,2-Dichloroethene	37		2 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	280		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	1600		5 UGL	GROUNDWA	100	SW-846 8260B	
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	75-01-4	Vinyl chloride	18	J	5 UGL	GROUNDWA	5	SW-846 8260B	
12/12/2001	MWB003	3744806	MWB003	12/19/2001	12/14/2001	75-35-4	1,1-Dichloroethene	67		5 UGL	GROUNDWA	5	SW-846 8260B	
3/27/2002	MWB003		MWB003	3/30/2002	3/28/2002	75-01-6	Trichloroethene	5800		70 UGL	GROUNDWA	1	SW-846 8260B	
3/27/2002	MWB003		MWB003	3/30/2002	3/28/2002	75-35-4	1,1-Dichloroethene	110		5 UGL	GROUNDWA	10	SW-846 8260B	
3/27/2002	MWB003		MWB003	4/1/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	2100		5 UGL	GROUNDWA	5	SW-846 8260B	
3/27/2002	MWB003		MWB003	4/1/2002	3/28/2002	71-55-6	1,1,1-Trichloroethane	380		5 UGL	GROUNDWA	2	SW-846 8260B	
3/27/2002	MWB003		MWB003	3/30/2002	3/28/2002	107-06-2	1,2-Dichloroethane	74		5 UGL	GROUNDWA	1	SW-846 8260B	
3/27/2002	MWB003		MWB003	4/1/2002	3/28/2002	79-01-6	Trichloroethene	5800		5 UGL	GROUNDWA	1	SW-846 8260B	
12/10/2001	MWB004	3742402	MWB004	12/13/2001	12/11/2001	79-01-6	Trichloroethene	9		70 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWB005		MWB005	8/9/2001	8/3/2001	79-01-6	Trichloroethene	5 6		5 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWB006		MWB006	8/10/2001	8/3/2001	79-01-6	Trichloroethene	870		5 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWB006		MWB006	8/10/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	670		5 UGL	GROUNDWA	5	SW-846 8260B	
8/2/2001	MWB006		MWB006	8/10/2001	8/3/2001	75-35-4	1,1-Dichloroethene	88		5 UGL	WATER	1	SW-846 8260B	
8/2/2001	MWB006		MWB006	8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	73		2 UGL	GROUNDWA	5	SW-846 8260B	
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	7		2 UGL	GROUNDWA	3	SW-846 8260B	
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	79-01-6	Trichloroethene	1300		5 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	1200		70 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	250		5 UGL	GROUNDWA	1	SW-846 8260B	
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	190		70 UGL	GROUNDWA	5	SW-846 8260B	
10/17/2001	MWB006	3709927	MWB006	10/23/2001	10/18/2001	75-01-4	Vinyl chloride	15		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB006	3744800	MWB006	12/18/2001	12/14/2001	79-01-4	Vinyl chloride	10		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB006	3744800	MWB006	12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	400		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB006	3744800	MWB006	12/19/2001	12/14/2001	79-01-6	Trichloroethene	670		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB006	3744800	MWB006	12/18/2001	12/14/2001	127-18-4	Tetrachloroethene	6		5 UGL	GROUNDWA	1	SW-846 8260B	
12/12/2001	MWB006	3744800	MWB006	12/18/2001	12/14/2001	75-35-4	1,1-Dichloroethene	76		5 UGL	GROUNDWA	1	SW-846 8260B	
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	75-55-4	1,1,1-Trichloroethane	1200		5 UGL	GROUNDWA	1	SW-846 8260B	
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	79-01-6	Trichloroethene	200		7 UGL	GROUNDWA	5	SW-846 8260B	
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1400		5 UGL	GROUNDWA	5	SW-846 8260B	
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	75-01-4	Vinyl chloride	210		70 UGL	GROUNDWA	20	SW-846 8260B	
3/26/2002	MWB006		MWB006	3/28/2002	3/27/2002	75-01-6	Trichloroethene	12		7 UGL	GROUNDWA	1	SW-846 8260B	
8/2/2001	MWC003		MWC003	8/9/2001	8/3/2001	79-01-6	Trichloroethene	25		5 UGL	GROUNDWA	20	SW-846 8260B	

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPLEDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL.Standard	UNITS	MATRIX	REPLIMIT	METHOD
3/26/2002 PZ007IDUP		PZ007IDUP		3/28/2002	3/27/2002	79-01-6	Trichloroethene	19			5 UGL	GROUNDWA	50	SW-846 8260B
8/2/2001 PZ008D		PZ008D		8/9/2001	8/3/2001	79-01-6	Trichloroethene	17			2 UGL	WATER	20	SW-846 8260B
8/2/2001 PZ008I		PZ008I		8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	10000			70 UGL	WATER	1	SW-846 8260B
8/2/2001 PZ008I		PZ008I		8/10/2001	8/3/2001	79-01-6	Trichloroethene	1900			5 UGL	WATER	25	SW-846 8260B
10/17/2001 PZ008I	3709929	PZ008I		10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	12000			5 UGL	WATER	1	SW-846 8260B
10/17/2001 PZ008I	3709929	PZ008I		10/23/2001	10/18/2001	79-01-6	Trichloroethene	2400			5 UGL	WATER	2	SW-846 8260B
10/17/2001 PZ008I	3709929	PZ008I		10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	110			5 UGL	WATER	10	SW-846 8260B
12/12/2001 PZ008I	3744803	PZ008I		12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	210			200 UGL	WATER	1	SW-846 8260B
12/12/2001 PZ008I	3744803	PZ008I		12/19/2001	12/14/2001	79-01-6	Trichloroethene	3500			5 UGL	WATER	1	SW-846 8260B
12/12/2001 PZ008I	3744803	PZ008I		12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	13000			5 UGL	WATER	1	SW-846 8260B
3/26/2002 PZ008I		PZ008I		3/29/2002	3/27/2002	127-18-4	Tetrachloroethene	18000			5 UGL	WATER	10	SW-846 8260B
3/26/2002 PZ008I		PZ008I		3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	310			70 UGL	WATER	1	SW-846 8260B
3/26/2002 PZ008I		PZ008I		3/29/2002	3/27/2002	79-01-6	Trichloroethene	6700			7 UGL	WATER	20	SW-846 8260B
8/2/2001 PZ009D		PZ009D		8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	150			200 UGL	WATER	25	SW-846 8260B
8/2/2001 PZ009D		PZ009D		8/10/2001	8/3/2001	79-01-6	Trichloroethene	2000			2 UGL	WATER	1	SW-846 8260B
10/17/2001 PZ009D	3709931	PZ009D		10/23/2001	10/18/2001	79-01-6	Trichloroethene	1700			70 UGL	WATER	20	SW-846 8260B
10/17/2001 PZ009D	3709931	PZ009D		10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	16			5 UGL	WATER	250	SW-846 8260B
10/17/2001 PZ009D	3709931	PZ009D		10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	200			7 UGL	WATER	10	SW-846 8260B
10/17/2001 PZ009D	3709931	PZ009D		10/23/2001	10/18/2001	75-01-4	Vinyl chloride	18			5 UGL	WATER	1	SW-846 8260B
12/12/2001 PZ009D	3744802	PZ009D		12/20/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	2000			7 UGL	WATER	5	SW-846 8260B
12/12/2001 PZ009D	3744802	PZ009D		12/20/2001	12/14/2001	75-01-4	Vinyl chloride	130			5 UGL	WATER	1	SW-846 8260B
12/12/2001 PZ009D	3744802	PZ009D		12/20/2001	12/14/2001	75-01-4	Vinyl chloride	7	J		5 UGL	WATER	1	SW-846 8260B
3/26/2002 PZ009D		PZ009D		3/29/2002	3/27/2002	75-01-4	Vinyl chloride	6	J		5 UGL	WATER	1	SW-846 8260B
3/26/2002 PZ009D		PZ009D		3/29/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	130			5 UGL	WATER	1	SW-846 8260B
3/26/2002 PZ009D		PZ009D		3/29/2002	3/27/2002	79-01-6	Trichloroethene	1900			5 UGL	WATER	1	SW-846 8260B
8/2/2001 PZ010I		PZ010I		8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	2600			5 UGL	WATER	20	SW-846 8260B
8/2/2001 PZ010I		PZ010I		8/10/2001	8/3/2001	79-01-6	Trichloroethene	20000			70 UGL	WATER	20	SW-846 8260B
10/17/2001 PZ010I	3709934	PZ010I		10/24/2001	10/18/2001	79-01-6	Trichloroethene	21000			5 UGL	WATER	50	SW-846 8260B
10/17/2001 PZ010I	3709934	PZ010I		10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	2900			70 UGL	WATER	5	SW-846 8260B
10/17/2001 PZ010I	3709934	PZ010I		10/23/2001	10/18/2001	75-01-4	Vinyl chloride	230			70 UGL	WATER	25	SW-846 8260B
10/17/2001 PZ010I	3709934	PZ010I		10/23/2001	10/18/2001	75-35-4	1,1-Dichloroethene	15	J		5 UGL	WATER	5	SW-846 8260B
12/12/2001 PZ010I	3744807	PZ010I		12/19/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	2800			5 UGL	WATER	1	SW-846 8260B
12/12/2001 PZ010I	3744807	PZ010I		12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	31	J		70 UGL	WATER	1	SW-846 8260B
12/12/2001 PZ010I	3744807	PZ010I		12/19/2001	12/14/2001	75-01-4	Vinyl chloride	240			5 UGL	WATER	10	SW-846 8260B
12/12/2001 PZ010I	3744807	PZ010I		12/19/2001	12/14/2001	79-01-6	Trichloroethene	12000			5 UGL	WATER	1	SW-846 8260B
3/27/2002 PZ010I		PZ010I		4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	2700			5 UGL	WATER	5	SW-846 8260B
3/27/2002 PZ010I		PZ010I		4/9/2002	3/28/2002	75-01-4	Vinyl chloride	73	J		5 UGL	WATER	10	SW-846 8260B
3/27/2002 PZ010I		PZ010I		4/4/2002	3/28/2002	79-01-6	Trichloroethene	20000			7 UGL	WATER	2	SW-846 8260B
8/2/2001 PZ012D		PZ012D		8/9/2001	8/3/2001	79-01-6	Trichloroethene	39			5 UGL	WATER	5	SW-846 8260B
8/2/2001 PZ012I		PZ012I		8/9/2001	8/3/2001	79-01-6	Trichloroethene	61			5 UGL	WATER	1	SW-846 8260B
8/2/2001 PZ012I		PZ012I		8/9/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	370			70 UGL	WATER	10	SW-846 8260B
10/15/2001 PZ012I	3707948	PZ012I		10/23/2001	10/16/2001	156-59-2	cis-1,2-Dichloroethene	420			5 UGL	WATER	3	SW-846 8260B
10/15/2001 PZ012I	3707948	PZ012I		10/23/2001	10/16/2001	79-01-6	Trichloroethene	91			5 UGL	WATER	10	SW-846 8260B
12/10/2001 PZ012I	3742407	PZ012I		12/13/2001	12/11/2001	75-01-4	Vinyl chloride	3	J		2 UGL	WATER	1	SW-846 8260B
12/10/2001 PZ012I	3742407	PZ012I		12/13/2001	12/11/2001	156-59-2	cis-1,2-Dichloroethene	500			7 UGL	WATER	1	SW-846 8260B
12/10/2001 PZ012I	3742407	PZ012I		12/13/2001	12/11/2001	79-01-6	Trichloroethene	110			70 UGL	WATER	1	SW-846 8260B
3/26/2002 PZ012I		PZ012I		3/28/2002	3/27/2002	79-01-6	Trichloroethene	110			200 UGL	WATER	5	SW-846 8260B
3/26/2002 PZ012I		PZ012I		3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	450			5 UGL	WATER	5	SW-846 8260B
8/2/2001 PZ013I		PZ013I		8/10/2001	8/3/2001	127-18-4	Tetrachloroethene	560			5 UGL	WATER	5	SW-846 8260B
8/2/2001 PZ013I		PZ013I		8/10/2001	8/3/2001	71-55-6	1,1,1-Trichloroethane	740			5 UGL	WATER	2	SW-846 8260B
8/2/2001 PZ013I		PZ013I		8/10/2001	8/3/2001	79-01-6	Trichloroethene	1100			5 UGL	WATER	20	SW-846 8260B
8/2/2001 PZ013I		PZ013I		8/10/2001	8/3/2001	75-35-4	1,1-Dichloroethene	88			2 UGL	WATER	1	SW-846 8260B
8/2/2001 PZ013I		PZ013I		8/10/2001	8/3/2001	156-59-2	cis-1,2-Dichloroethene	93			5 UGL	WATER	20	SW-846 8260B
10/17/2001 PZ013I	3709926	PZ013I		10/23/2001	10/16/2001	75-35-4	1,1-Dichloroethene	56			5 UGL	WATER	1	SW-846 8260B
10/17/2001 PZ013I	3709926	PZ013I		10/23/2001	10/18/2001	75-01-4	Vinyl chloride	6			2 UGL	WATER	10	SW-846 8260B
10/17/2001 PZ013I	3709926	PZ013I		10/23/2001	10/18/2001	56-23-5	Carbon tetrachloride	130			5 UGL	WATER	1	SW-846 8260B
10/17/2001 PZ013I	3709926	PZ013I		10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	79			5 UGL	WATER	3	SW-846 8260B
10/17/2001 PZ013I	3709926	PZ013I		10/23/2001	10/18/2001	71-55-6	1,1,1-Trichloroethane	600			5 UGL	WATER	1	SW-846 8260B
10/17/2001 PZ013I	3709926	PZ013I		10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	550			5 UGL	WATER	1	SW-846 8260B
10/17/2001 PZ013I	3709926	PZ013I		10/23/2001	10/18/2001	79-01-6	Trichloroethene	750			5 UGL	WATER	1	SW-846 8260B

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SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL.Standard	UNITS	MATRIX	REPLIMIT	METHOD
12/12/2001 PZ013I	3744792	PZ013I		12/18/2001	12/14/2001	75-01-4	Vinyl chloride	4	J	5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 PZ013I	3744792	PZ013I		12/18/2001	12/14/2001	75-35-4	1,1-Dichloroethene	39		5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 PZ013I	3744792	PZ013I		12/18/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	74		5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 PZ013I	3744792	PZ013I		12/19/2001	12/14/2001	71-55-6	1,1,1-Trichloroethane	470		5 UG/L	WATER	25	SW-846 8260B	
12/12/2001 PZ013I	3744792	PZ013I		12/19/2001	12/14/2001	79-01-6	Trichloroethene	480		5 UG/L	WATER	25	SW-846 8260B	
12/12/2001 PZ013I	3744792	PZ013I		12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	690		70 UG/L	WATER	3	SW-846 8260B	
3/26/2002 PZ013I		PZ013I		3/28/2002	3/27/2002	79-01-6	Trichloroethene	390		5 UG/L	WATER	1	SW-846 8260B	
3/26/2002 PZ013I		PZ013I		3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	890		5 UG/L	WATER	10	SW-846 8260B	
3/26/2002 PZ013I		PZ013I		3/28/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	450		5 UG/L	WATER	1	SW-846 8260B	
3/26/2002 PZ013I		PZ013I		3/28/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	78		5 UG/L	WATER	25	SW-846 8260B	
3/26/2002 PZ013I		PZ013I		3/28/2002	3/27/2002	75-35-4	1,1-Dichloroethene	39		5 UG/L	WATER	50	SW-846 8260B	
8/2/2001 PZ014I		PZ014I		8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	10		5 UG/L	WATER	100	SW-846 8260B	
8/2/2001 PZ014I		PZ014I		8/9/2001	8/3/2001	79-01-6	Trichloroethene	260		5 UG/L	WATER	5	SW-846 8260B	
10/15/2001 PZ014I	3707950	PZ014I		10/22/2001	10/16/2001	156-59-2	cis-1,2-Dichloroethene	83		200 UG/L	WATER	5	SW-846 8260B	
10/15/2001 PZ014I	3707950	PZ014I		10/24/2001	10/16/2001	79-01-6	Trichloroethene	290		70 UG/L	WATER	50	SW-846 8260B	
10/15/2001 PZ014I	3707950	PZ014I		10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	12		70 UG/L	WATER	3	SW-846 8260B	
12/10/2001 PZ014I	3742410	PZ014I		12/13/2001	12/11/2001	156-59-2	cis-1,2-Dichloroethene	85		2 UG/L	WATER	5	SW-846 8260B	
12/10/2001 PZ014I	3742410	PZ014I		12/14/2001	12/11/2001	79-01-6	Trichloroethene	280		2 UG/L	WATER	1	SW-846 8260B	
12/10/2001 PZ014I	3742410	PZ014I		12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	10		200 UG/L	WATER	2	SW-846 8260B	
3/26/2002 PZ014I		PZ014I		3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	12		70 UG/L	WATER	25	SW-846 8260B	
3/26/2002 PZ014I		PZ014I		3/28/2002	3/27/2002	79-01-6	Trichloroethene	290		7 UG/L	WATER	2	SW-846 8260B	
8/2/2001 PZ015I		PZ015I		8/9/2001	8/3/2001	107-06-2	1,2-Dichloroethene	5 1		2 UG/L	WATER	2	SW-846 8260B	
8/2/2001 PZ015I		PZ015I		8/9/2001	8/3/2001	79-01-6	Trichloroethene	5.8		5 UG/L	WATER	1	SW-846 8260B	
8/2/2001 PZ015I		PZ015I		8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	52		5 UG/L	WATER	10	SW-846 8260B	
10/15/2001 PZ015I	3707957	PZ015I		10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	67		7 UG/L	WATER	5	SW-846 8260B	
10/15/2001 PZ015I	3707957	PZ015I		10/22/2001	10/16/2001	107-06-2	1,2-Dichloroethane	6		200 UG/L	WATER	10	SW-846 8260B	
12/10/2001 PZ015I	3742414	PZ015I		12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	66		200 UG/L	WATER	5	SW-846 8260B	
3/27/2002 PZ015I		PZ015I		3/29/2002	3/28/2002	107-06-2	1,2-Dichloroethane	7		5 UG/L	WATER	5	SW-846 8260B	
3/27/2002 PZ015I		PZ015I		3/29/2002	3/28/2002	127-18-4	Tetrachloroethene	71		5 UG/L	WATER	1	SW-846 8260B	
10/15/2001 PZ015I-DUP	3707958	PZ015I-DUP		10/22/2001	10/16/2001	107-06-2	1,2-Dichloroethane	6		70 UG/L	WATER	10	SW-846 8260B	
10/15/2001 PZ015I-DUP	3707958	PZ015I-DUP		10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	67		5 UG/L	WATER	100	SW-846 8260B	
8/2/2001 PZ016D		PZ016D		8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	170		5 UG/L	WATER	1	SW-846 8260B	
8/2/2001 PZ016D		PZ016D		8/9/2001	8/3/2001	79-01-6	Trichloroethene	14		7 UG/L	WATER	1	SW-846 8260B	
8/2/2001 PZ016D		PZ016D		8/9/2001	8/3/2001	75-01-4	Vinyl chloride	14		2 UG/L	WATER	3	SW-846 8260B	
10/15/2001 PZ016D	3707951	PZ016D		10/22/2001	10/16/2001	75-01-4	Vinyl chloride	13		5 UG/L	WATER	100	SW-846 8260B	
10/15/2001 PZ016D	3707951	PZ016D		10/22/2001	10/16/2001	79-01-6	Trichloroethene	12		7 UG/L	WATER	1	SW-846 8260B	
10/15/2001 PZ016D	3707951	PZ016D		10/22/2001	10/16/2001	127-18-4	Tetrachloroethene	170		70 UG/L	WATER	1	SW-846 8260B	
12/10/2001 PZ016D	3742411	PZ016D		12/13/2001	12/11/2001	75-01-4	Vinyl chloride	16		5 UG/L	WATER	1	SW-846 8260B	
12/10/2001 PZ016D	3742411	PZ016D		12/13/2001	12/11/2001	79-01-6	Trichloroethene	11		5 UG/L	WATER	1	SW-846 8260B	
12/10/2001 PZ016D	3742411	PZ016D		12/13/2001	12/11/2001	127-18-4	Tetrachloroethene	220		5 UG/L	WATER	5	SW-846 8260B	
3/26/2002 PZ016D		PZ016D		3/28/2002	3/27/2002	127-18-4	Tetrachloroethene	240		2 UG/L	WATER	1	SW-846 8260B	
3/26/2002 PZ016D		PZ016D		3/28/2002	3/27/2002	79-01-6	Trichloroethene	18		5 UG/L	WATER	1	SW-846 8260B	
3/26/2002 PZ016D		PZ016D		3/28/2002	3/27/2002	75-01-4	Vinyl chloride	12		70 UG/L	WATER	10	SW-846 8260B	
8/2/2001 PZ017D		PZ017D		8/10/2001	8/3/2001	75-01-4	Vinyl chloride	9.6		5 UG/L	WATER	10	SW-846 8260B	
10/15/2001 PZ017D	3707944	PZ017D		10/23/2001	10/16/2001	75-01-4	Vinyl chloride	15		5 UG/L	WATER	1	SW-846 8260B	
12/10/2001 PZ017D	3742406	PZ017D		12/13/2001	12/11/2001	75-01-4	Vinyl chloride	15		5 UG/L	WATER	3	SW-846 8260B	
3/26/2002 PZ017D		PZ017D		3/29/2002	3/27/2002	75-01-4	Vinyl chloride	16		5 UG/L	WATER	1	SW-846 8260B	
8/2/2001 PZ017I		PZ017I		8/9/2001	8/3/2001	127-18-4	Tetrachloroethene	1700		5 UG/L	WATER	1	SW-846 8260B	
8/2/2001 PZ017I		PZ017I		8/9/2001	8/3/2001	79-01-6	Trichloroethene	94		2 UG/L	WATER	1	SW-846 8260B	
10/17/2001 PZ017I	3709921	PZ017I		10/23/2001	10/18/2001	127-18-4	Tetrachloroethene	1600		7 UG/L	WATER	1	SW-846 8260B	
10/17/2001 PZ017I	3709921	PZ017I		10/23/2001	10/18/2001	79-01-6	Trichloroethene	130		70 UG/L	WATER	10	SW-846 8260B	
12/12/2001 PZ017I	3744797	PZ017I		12/19/2001	12/14/2001	79-01-6	Trichloroethene	82		5 UG/L	WATER	1	SW-846 8260B	
12/12/2001 PZ017I	3744797	PZ017I		12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	1500		5 UG/L	WATER	1	SW-846 8260B	
3/26/2002 PZ017I		PZ017I		3/30/2002	3/27/2002	79-01-6	Trichloroethene	110		5 UG/L	WATER	1	SW-846 8260B	
3/26/2002 PZ017I		PZ017I		4/1/2002	3/27/2002	127-18-4	Tetrachloroethene	1500		7 UG/L	WATER	3	SW-846 8260B	
10/15/2001 PZ019I	3707940	PZ019I		10/22/2001	10/16/2001	79-01-6	Trichloroethene	9		2 UG/L	WATER	3	SW-846 8260B	
12/10/2001 PZ019I	3742400	PZ019I		12/13/2001	12/11/2001	79-01-6	Trichloroethene	10		70 UG/L	WATER	25	SW-846 8260B	
3/26/2002 PZ019I		PZ019I		3/27/2002	3/27/2002	79-01-6	Trichloroethene	9		5 UG/L	WATER	3	SW-846 8260B	
10/15/2001 PZ020D	3707946	PZ020D		10/23/2001	10/16/2001	75-01-4	Vinyl chloride	3	J	5 UG/L	WATER	25	SW-846 8260B	
12/12/2001 PZ020D	3744796	PZ020D		12/18/2001	12/14/2001	75-01-4	Vinyl chloride	3	J	2 UG/L	WATER	1	SW-846 8260B	

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL Standard	UNITS	MATRIX	REPLIMIT	METHOD
12/12/2001 PZ0200	3744796	PZ020D		12/18/2001	12/14/2001	79-01-6	Trichloroethene	10	J		5 UGL	WATER	5	SW-846 8260B
3/26/2002 PZ0200		PZ020D		3/29/2002	3/27/2002	75-01-4	Vinyl chloride	3			5 UGL	WATER	20	SW-846 8260B
10/15/2001 PZ0211	3707943	PZ021I		10/23/2001	10/16/2001	79-01-6	Trichloroethene	9			5 UGL	WATER	1	SW-846 8260B
12/10/2001 PZ0211	3742401	PZ021I		12/13/2001	12/11/2001	79-01-6	Trichloroethene	9			5 UGL	WATER	1	SW-846 8260B
3/26/2002 PZ0211		PZ021I		3/27/2002	3/27/2002	79-01-6	Trichloroethene	8			200 UGL	WATER	3	SW-846 8260B
10/15/2001 PZ0221	3707935	PZ022I		10/19/2001	10/16/2001	79-01-6	Trichloroethene	10			5 UGL	WATER	1	SW-846 8260B
12/10/2001 PZ0221	3742398	PZ022I		12/13/2001	12/11/2001	79-01-6	Trichloroethene	11			70 UGL	WATER	1	SW-846 8260B
3/27/2002 PZ0221		PZ022I		4/4/2002	3/28/2002	79-01-6	Trichloroethene	10			5 UGL	WATER	25	SW-846 8260B
12/11/2001 PZ024D	3743185	PZ024D		12/15/2001	12/12/2001	79-01-6	Trichloroethene	10			5 UGL	WATER	10	SW-846 8260B
12/11/2001 PZ024D/DUP	3743186	PZ024D/DUP		12/15/2001	12/12/2001	79-01-6	Trichloroethene	11			70 UGL	WATER	1	SW-846 8260B
10/16/2001 PZ024I	3708794	PZ024I		10/20/2001	10/17/2001	75-01-4	Vinyl chloride	5	J		5 UGL	WATER	5	SW-846 8260B
10/16/2001 PZ024I	3708794	PZ024I		10/20/2001	10/17/2001	75-35-4	1,1-Dichloroethene	61			70 UGL	WATER	2	SW-846 8260B
10/16/2001 PZ024I	3708794	PZ024I		10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	580			5 UGL	WATER	5	SW-846 8260B
10/16/2001 PZ024I	3708794	PZ024I		10/20/2001	10/17/2001	71-55-6	1,1,1-Trichloroethane	290			5 UGL	WATER	5	SW-846 8260B
10/16/2001 PZ024I	3708794	PZ024I		10/22/2001	10/17/2001	79-01-6	Trichloroethene	840			70 UGL	WATER	1	SW-846 8260B
12/11/2001 PZ024I	3743187	PZ024I		12/15/2001	12/12/2001	79-01-6	Trichloroethene	930			5 UGL	WATER	10	SW-846 8260B
12/11/2001 PZ024I	3743187	PZ024I		12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	640			5 UGL	WATER	20	SW-846 8260B
12/11/2001 PZ024I	3743187	PZ024I		12/15/2001	12/12/2001	75-35-4	1,1-Dichloroethene	64			5 UGL	WATER	1	SW-846 8260B
12/11/2001 PZ024I	3743187	PZ024I		12/15/2001	12/12/2001	71-55-6	1,1,1-Trichloroethane	250			200 UGL	WATER	20	SW-846 8260B
12/11/2001 PZ024I	3743187	PZ024I		12/15/2001	12/12/2001	75-01-4	Vinyl chloride	5	J		70 UGL	WATER	20	SW-846 8260B
3/27/2002 PZ024I		PZ024I		4/8/2002	3/28/2002	75-01-4	Vinyl chloride	4			5 UGL	WATER	200	SW-846 8260B
3/27/2002 PZ024I		PZ024I		4/8/2002	3/28/2002	75-35-4	1,1-Dichloroethene	88			2 UGL	WATER	2	SW-846 8260B
3/27/2002 PZ024I		PZ024I		4/4/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	760			70 UGL	WATER	2	SW-846 8260B
3/27/2002 PZ024I		PZ024I		4/4/2002	3/28/2002	71-55-6	1,1,1-Trichloroethane	370			5 UGL	WATER	20	SW-846 8260B
3/27/2002 PZ024I		PZ024I		4/4/2002	3/28/2002	79-01-6	Trichloroethene	1400			200 UGL	WATER	10	SW-846 8260B
12/11/2001 PZ025D	3743182	PZ025D		12/15/2001	12/12/2001	79-01-6	Trichloroethene	15			5 UGL	WATER	2	SW-846 8260B
10/16/2001 PZ025I	3708800	PZ025I		10/22/2001	10/17/2001	79-01-6	Trichloroethene	63			7 UGL	WATER	2	SW-846 8260B
10/16/2001 PZ025I	3708800	PZ025I		10/22/2001	10/17/2001	75-01-4	Vinyl chloride	9			5 UGL	WATER	20	SW-846 8260B
10/16/2001 PZ025I	3708800	PZ025I		10/22/2001	10/17/2001	75-35-4	1,1-Dichloroethene	15			70 UGL	WATER	2	SW-846 8260B
10/16/2001 PZ025I	3708800	PZ025I		10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	1100			5 UGL	WATER	1	SW-846 8260B
10/16/2001 PZ025I	3708800	PZ025I		10/22/2001	10/17/2001	107-06-2	1,2-Dichloroethane	10			2 UGL	WATER	2	SW-846 8260B
12/11/2001 PZ025I	3743183	PZ025I		12/15/2001	12/12/2001	75-35-4	1,1-Dichloroethene	14			5 UGL	WATER	10	SW-846 8260B
12/11/2001 PZ025I	3743183	PZ025I		12/15/2001	12/12/2001	75-01-4	Vinyl chloride	7			70 UGL	WATER	20	SW-846 8260B
12/11/2001 PZ025I	3743183	PZ025I		12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	1100			5 UGL	WATER	10	SW-846 8260B
12/11/2001 PZ025I	3743183	PZ025I		12/15/2001	12/12/2001	107-06-2	1,2-Dichloroethane	7			5 UGL	WATER	1	SW-846 8260B
12/11/2001 PZ025I	3743183	PZ025I		12/15/2001	12/12/2001	79-01-6	Trichloroethene	85			2 UGL	WATER	1	SW-846 8260B
3/25/2002 PZ025I		PZ025I		3/30/2002	3/27/2002	75-01-4	Vinyl chloride	6			5 UGL	WATER	1	SW-846 8260B
3/25/2002 PZ025I		PZ025I		3/30/2002	3/27/2002	75-35-4	1,1-Dichloroethene	16			2 UGL	WATER	1	SW-846 8260B
3/25/2002 PZ025I		PZ025I		4/1/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1200			70 UGL	WATER	10	SW-846 8260B
3/25/2002 PZ025I		PZ025I		3/30/2002	3/27/2002	107-06-2	1,2-Dichloroethane	11			5 UGL	WATER	100	SW-846 8260B
3/25/2002 PZ025I		PZ025I		3/30/2002	3/27/2002	79-01-6	Trichloroethene	110			5 UGL	WATER	1	SW-846 8260B
10/16/2001 PZ026I	3708797	PZ026I		10/22/2001	10/17/2001	75-01-4	Vinyl chloride	13	J		7 UGL	WATER	20	SW-846 8260B
10/16/2001 PZ026I	3708797	PZ026I		10/22/2001	10/17/2001	107-06-2	1,2-Dichloroethane	7	J		5 UGL	WATER	10	SW-846 8260B
10/16/2001 PZ026I	3708797	PZ026I		10/22/2001	10/17/2001	75-35-4	1,1-Dichloroethene	31			70 UGL	WATER	10	SW-846 8260B
10/16/2001 PZ026I	3708797	PZ026I		10/22/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	1100			5 UGL	WATER	100	SW-846 8260B
10/16/2001 PZ026I	3708797	PZ026I		10/22/2001	10/17/2001	71-55-6	1,1,1-Trichloroethane	220			5 UGL	WATER	1	SW-846 8260B
10/16/2001 PZ026I	3708797	PZ026I		10/22/2001	10/17/2001	79-01-6	Trichloroethene	3000			2 UGL	WATER	20	SW-846 8260B
12/11/2001 PZ026I	3743180	PZ026I		12/15/2001	12/12/2001	75-01-4	Vinyl chloride	11	J		2 UGL	WATER	1	SW-846 8260B
12/11/2001 PZ026I	3743180	PZ026I		12/15/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	890			5 UGL	WATER	1	SW-846 8260B
12/11/2001 PZ026I	3743180	PZ026I		12/15/2001	12/12/2001	79-01-6	Trichloroethene	2600			70 UGL	WATER	1	SW-846 8260B
12/11/2001 PZ026I	3743180	PZ026I		12/15/2001	12/12/2001	75-35-4	1,1-Dichloroethene	22			5 UGL	WATER	5	SW-846 8260B
3/25/2002 PZ026I		PZ026I		3/30/2002	3/27/2002	75-35-4	1,1-Dichloroethene	31			5 UGL	WATER	1	SW-846 8260B
3/25/2002 PZ026I		PZ026I		3/30/2002	3/27/2002	75-01-4	Vinyl chloride	11	J		70 UGL	WATER	5	SW-846 8260B
3/25/2002 PZ026I		PZ026I		3/30/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1200			5 UGL	WATER	20	SW-846 8260B
3/25/2002 PZ026I		PZ026I		3/30/2002	3/27/2002	107-06-2	1,2-Dichloroethane	9	J		7 UGL	WATER	1	SW-846 8260B
3/25/2002 PZ026I		PZ026I		3/30/2002	3/27/2002	79-01-6	Trichloroethene	3600			70 UGL	WATER	20	SW-846 8260B
3/25/2002 PZ026I		PZ026I		3/30/2002	3/27/2002	71-55-6	1,1,1-Trichloroethane	250			200 UGL	WATER	20	SW-846 8260B
12/11/2001 PZ027D	3743176	PZ027D		12/14/2001	12/12/2001	79-01-6	Trichloroethene	75			5 UGL	WATER	20	SW-846 8260B
10/16/2001 PZ028D	3708807	PZ028D		10/22/2001	10/17/2001	79-01-6	Trichloroethene	130			5 UGL	WATER	20	SW-846 8260B
12/11/2001 PZ028D	3743172	PZ028D		12/14/2001	12/12/2001	79-01-6	Trichloroethene	74			5 UGL	WATER	1	SW-846 8260B

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August 2001, October 2001, December 2001 and March 2002

SAMPDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL.Standard	UNITS	MATRIX	REPLIMIT	METHOD
3/27/2002 PZ028D		PZ028D		4/4/2002	3/28/2002	79-01-6	Trichloroethene	140		5 UGL	WATER	20	SW-846 8260B	
10/16/2001 PZ028I	3708808	PZ028I		10/19/2001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	170		2 UGL	WATER	1	SW-846 8260B	
10/16/2001 PZ028I	3708808	PZ028I		10/19/2001	10/17/2001	107-06-2	1,2-Dichloroethane	6		5 UGL	WATER	1	SW-846 8260B	
10/16/2001 PZ028I	3708808	PZ028I		10/22/2001	10/17/2001	79-01-6	Trichloroethene	920		7 UGL	WATER	20	SW-846 8260B	
10/16/2001 PZ028I	3708808	PZ028I		10/19/2001	10/17/2001	75-35-4	1,1-Dichloroethene	8		5 UGL	WATER	10	SW-846 8260B	
12/11/2001 PZ028I	3743174	PZ028I		12/14/2001	12/12/2001	107-06-2	1,2-Dichloroethane	6		2 UGL	WATER	1	SW-846 8260B	
12/11/2001 PZ028I	3743174	PZ028I		12/14/2001	12/12/2001	75-35-4	1,1-Dichloroethene	9		5 UGL	WATER	1	SW-846 8260B	
12/11/2001 PZ028I	3743174	PZ028I		12/14/2001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	210		5 UGL	WATER	1	SW-846 8260B	
12/11/2001 PZ028I	3743174	PZ028I		12/14/2001	12/12/2001	79-01-6	Trichloroethene	1000		5 UGL	WATER	1	SW-846 8260B	
3/27/2002 PZ028I		PZ028I		4/4/2002	3/28/2002	79-01-6	Trichloroethene	1200		5 UGL	WATER	1	SW-846 8260B	
3/27/2002 PZ028I		PZ028I		4/9/2002	3/28/2002	107-06-2	1,2-Dichloroethane	6		5 UGL	WATER	10	SW-846 8260B	
3/27/2002 PZ028I		PZ028I		4/9/2002	3/28/2002	75-35-4	1,1-Dichloroethene	10		7 UGL	WATER	1	SW-846 8260B	
3/27/2002 PZ028I		PZ028I		4/9/2002	3/28/2002	156-59-2	cis-1,2-Dichloroethene	240		200 UGL	WATER	10	SW-846 8260B	
10/16/2001 PZ029D	3708821	PZ029D		10/19/2001	10/17/2001	79-01-6	Trichloroethene	6		70 UGL	WATER	1	SW-846 8260B	
10/16/2001 PZ029I	3708820	PZ029I		10/19/2001	10/17/2001	79-01-6	Trichloroethene	34		7 UGL	WATER	1	SW-846 8260B	
10/16/2001 PZ029I	3708820	PZ029I		10/19/2001	10/17/2001	75-01-4	Vinyl chloride	16		5 UGL	WATER	1	SW-846 8260B	
12/11/2001 PZ029I	3743195	PZ029I		12/15/2001	12/12/2001	75-01-4	Vinyl chloride	18		5 UGL	WATER	20	SW-846 8260B	
12/11/2001 PZ029I	3743195	PZ029I		12/15/2001	12/12/2001	79-01-6	Trichloroethene	25		200 UGL	WATER	20	SW-846 8260B	
3/27/2002 PZ029I		PZ029I		4/4/2002	3/28/2002	75-01-4	Vinyl chloride	17		70 UGL	WATER	5	SW-846 8260B	
3/27/2002 PZ029I		PZ029I		4/4/2002	3/28/2002	79-01-6	Trichloroethene	10		5 UGL	WATER	1	SW-846 8260B	
10/16/2001 PZ030D	3708811	PZ030D		10/19/2001	10/17/2001	79-01-6	Trichloroethene	10		70 UGL	WATER	20	SW-846 8260B	
12/12/2001 PZ030D	3744810	PZ030D		12/19/2001	12/14/2001	79-01-6	Trichloroethene	56		5 UGL	WATER	10	SW-846 8260B	
10/16/2001 PZ030I	3708810	PZ030I		10/19/2001	10/17/2001	79-01-6	Trichloroethene	17		5 UGL	WATER	1	SW-846 8260B	
12/12/2001 PZ030I	3744809	PZ030I		12/19/2001	12/14/2001	79-01-6	Trichloroethene	60		5 UGL	WATER	1	SW-846 8260B	
12/12/2001 PZ030I	3744809	PZ030I		12/19/2001	12/14/2001	127-18-4	Tetrachloroethene	18		2 UGL	WATER	1	SW-846 8260B	
10/16/2001 PZ031I	3708787	PZ031I		10/19/2001	10/17/2001	79-01-6	Trichloroethene	160		7 UGL	WATER	1	SW-846 8260B	
12/11/2001 PZ031I	3743171	PZ031I		12/14/2001	12/12/2001	79-01-6	Trichloroethene	160		70 UGL	WATER	20	SW-846 8260B	
3/27/2002 PZ031I		PZ031I		4/4/2002	3/28/2002	79-01-6	Trichloroethene	180		200 UGL	WATER	20	SW-846 8260B	
10/17/2001 PZ032D	3709913	PZ032D		10/24/2001	10/18/2001	79-01-6	Trichloroethene	280		5 UGL	WATER	20	SW-846 8260B	
12/11/2001 PZ032D	3743201	PZ032D		12/15/2001	12/12/2001	79-01-6	Trichloroethene	230		2 UGL	WATER	5	SW-846 8260B	
3/25/2002 PZ032D		PZ032D		3/29/2002	3/27/2002	79-01-6	Trichloroethene	250		7 UGL	WATER	5	SW-846 8260B	
10/17/2001 PZ032I	3709912	PZ032I		10/24/2001	10/18/2001	79-01-6	Trichloroethene	89		70 UGL	WATER	5	SW-846 8260B	
12/11/2001 PZ032I	3743200	PZ032I		12/15/2001	12/12/2001	79-01-6	Trichloroethene	66		7 UGL	WATER	1	SW-846 8260B	
3/25/2002 PZ032I		PZ032I		3/29/2002	3/27/2002	79-01-6	Trichloroethene	37		2 UGL	WATER	20	SW-846 8260B	
10/16/2001 PZ033D	3708813	PZ033D		10/19/2001	10/17/2001	79-01-6	Trichloroethene	11		5 UGL	WATER	100	SW-846 8260B	
12/11/2001 PZ033D	3743199	PZ033D		12/15/2001	12/12/2001	79-01-6	Trichloroethene	160		5 UGL	WATER	100	SW-846 8260B	
10/16/2001 PZ033I	3708814	PZ033I		10/19/2001	10/17/2001	79-01-6	Trichloroethene	97		5 UGL	WATER	1	SW-846 8260B	
12/11/2001 PZ033I	3743197	PZ033I		12/15/2001	12/12/2001	79-01-6	Trichloroethene	57		5 UGL	WATER	1	SW-846 8260B	
3/25/2002 PZ033I		PZ033I		3/29/2002	3/27/2002	79-01-6	Trichloroethene	40		5 UGL	WATER	1	SW-846 8260B	
3/25/2002 PZ033IDUP		PZ033IDUP		3/29/2002	3/27/2002	79-01-6	Trichloroethene	42		2 UGL	WATER	2	SW-846 8260B	
10/16/2001 PZ034D	3708817	PZ034D		10/19/2001	10/17/2001	79-01-6	Trichloroethene	12		70 UGL	WATER	2	SW-846 8260B	
12/12/2001 PZ035D	3744813	PZ035D		12/20/2001	12/14/2001	79-01-6	Trichloroethene	47		5 UGL	WATER	10	SW-846 8260B	
10/17/2001 PZ035I	3709915	PZ035I		10/24/2001	10/18/2001	79-01-6	Trichloroethene	290		5 UGL	WATER	10	SW-846 8260B	
12/12/2001 PZ035I	3744814	PZ035I		12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	19		2 UGL	WATER	2	SW-846 8260B	
12/12/2001 PZ035I	3744814	PZ035I		12/20/2001	12/14/2001	79-01-6	Trichloroethene	290		7 UGL	WATER	2	SW-846 8260B	
3/25/2002 PZ035I		PZ035I		3/29/2002	3/27/2002	79-01-6	Trichloroethene	190		70 UGL	WATER	2	SW-846 8260B	
10/17/2001 PZ036D	3709910	PZ036D		10/24/2001	10/18/2001	79-01-6	Trichloroethene	16		5 UGL	WATER	20	SW-846 8260B	
12/12/2001 PZ036D	3744822	PZ036D		12/20/2001	12/14/2001	79-01-6	Trichloroethene	32		5 UGL	WATER	50	SW-846 8260B	
12/12/2001 PZ036D	3744822	PZ036D		12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	9		5 UGL	WATER	1	SW-846 8260B	
3/25/2002 PZ036D		PZ036D		3/29/2002	3/27/2002	79-01-6	Trichloroethene	50		7 UGL	WATER	2	SW-846 8260B	
12/12/2001 PZ036I	3744824	PZ036I		12/20/2001	12/14/2001	79-01-6	Trichloroethene	14		70 UGL	WATER	20	SW-846 8260B	
12/12/2001 PZ036I	3744824	PZ036I		12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	6		200 UGL	WATER	2	SW-846 8260B	
12/12/2001 PZ036IDUP	3744825	PZ036IDUP		12/20/2001	12/14/2001	79-01-6	Trichloroethene	11		5 UGL	WATER	20	SW-846 8260B	
10/17/2001 PZ037D	3709919	PZ037D		10/23/2001	10/18/2001	79-01-6	Trichloroethene	8		2 UGL	WATER	1	SW-846 8260B	
12/12/2001 PZ037D	3744816	PZ037D		12/20/2001	12/14/2001	79-01-6	Trichloroethene	40		7 UGL	WATER	1	SW-846 8260B	
3/25/2002 PZ037D		PZ037D		3/29/2002	3/27/2002	79-01-6	Trichloroethene	79		70 UGL	WATER	50	SW-846 8260B	
10/17/2001 PZ037I	3709918	PZ037I		10/23/2001	10/18/2001	79-01-6	Trichloroethene	3300		200 UGL	WATER	50	SW-846 8260B	
12/12/2001 PZ037I	3744817	PZ037I		12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	8	J	5 UGL	WATER	1	SW-846 8260B	
12/12/2001 PZ037I	3744817	PZ037I		12/20/2001	12/14/2001	79-01-6	Trichloroethene	4700		5 UGL	WATER	50	SW-846 8260B	
3/25/2002 PZ037I		PZ037I		3/29/2002	3/27/2002	79-01-6	Trichloroethene	3800		2 UGL	WATER	1	SW-846 8260B	

TABLE A
MCL Exceedances for Sampling Events
August 2001, October 2001, December 2001 and March 2002

SAMPLEDATE	SAMPLEID	LABSAMPLEID	LOCATION	ANLYDATE	RECDATE	CAS	PARAMETER	RESULTS.RESULT	RESULTS.QUALIFIER	MCL.Standard	UNITS	MATRIX	REPLIMIT	METHOD
10/17/2001 PZ038D	3709906	PZ038D		10/24/2001	10/18/2001	79-01-6	Trichloroethene	980		70 UG/L	WATER	1	SW-846 8260B	
10/17/2001 PZ038D	3709906	PZ038D		10/23/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	78		5 UG/L	WATER	10	SW-846 8260B	
12/12/2001 PZ038D	3744819	PZ038D		12/20/2001	12/14/2001	127-18-4	Tetrachloroethene	25		2 UG/L	WATER	2	SW-846 8260B	
12/12/2001 PZ038D	3744819	PZ038D		12/20/2001	12/14/2001	79-01-6	Trichloroethene	880		5 UG/L	WATER	1	SW-846 8260B	
3/25/2002 PZ038D		PZ038D		3/29/2002	3/27/2002	79-01-6	Trichloroethene	800		5 UG/L	WATER	1	SW-846 8260B	
10/17/2001 PZ038I	3709907	PZ038I		10/24/2001	10/18/2001	79-01-6	Trichloroethene	2600		5 UG/L	WATER	1	SW-846 8260B	
10/17/2001 PZ038I	3709907	PZ038I		10/24/2001	10/18/2001	156-59-2	cis-1,2-Dichloroethene	160		5 UG/L	WATER	3	SW-846 8260B	
12/12/2001 PZ038I	3744820	PZ038I		12/20/2001	12/14/2001	79-01-6	Trichloroethene	3200		5 UG/L	WATER	5	SW-846 8260B	
12/12/2001 PZ038I	3744820	PZ038I		12/20/2001	12/14/2001	156-59-2	cis-1,2-Dichloroethene	170		2 UG/L	WATER	20	SW-846 8260B	
3/25/2002 PZ038I		PZ038I		3/29/2002	3/27/2002	156-59-2	cis-1,2-Dichloroethene	190		70 UG/L	WATER	20	SW-846 8260B	
3/25/2002 PZ038I		PZ038I		3/29/2002	3/27/2002	79-01-6	Trichloroethene	3200		5 UG/L	WATER	200	SW-846 8260B	
10/16/2001 PZ039D	3708790	PZ039D		10/20/2001	10/17/2001	79-01-6	Trichloroethene	7		2 UG/L	WATER	1	SW-846 8260B	
12/11/2001 PZ039D	3743189	PZ039D		12/15/2001	12/12/2001	79-01-6	Trichloroethene	15		5 UG/L	WATER	1	SW-846 8260B	
10/16/2001 PZ039I	3708792	PZ039I		10/22/2001	10/17/2001	79-01-6	Trichloroethene	420		7 UG/L	WATER	10	SW-846 8260B	
12/11/2001 PZ039I	3743190	PZ039I		12/16/2001	12/12/2001	79-01-6	Trichloroethene	370		70 UG/L	WATER	10	SW-846 8260B	
3/27/2002 PZ039I		PZ039I		4/4/2002	3/28/2002	79-01-6	Trichloroethene	570		70 UG/L	WATER	1	SW-846 8260B	

TABLE B
EW1 Summary

	Sampling Event				
		August-01	October-01	December-01	March-02
MW008S		UG/L	UG/L	UG/L	UG/L
Shallow					
1,1,1-Trichloroethane	15.5	15	12	7	
1,1-Dichloroethene	15.5	0.5	0.5	0.5	
1,2-Dichloroethane	15.5	0.5	0.5	0.5	
Carbon tetrachloride	15.5	0.5	0.5	0.5	
cis-1,2-Dichloroethene	22	31	39	30	
Tetrachloroethene	1100	1100	1000	1100	
Trichloroethene	440	510	430	440	
Vinyl chloride	15.5	0.5	0.5	0.5	
PZ008I		UG/L	UG/L	UG/L	UG/L
Intermediate					
1,1,1-Trichloroethane	165	42	38	46	
1,1-Dichloroethene	165	5	5	5	
1,2-Dichloroethane	165	5	5	5	
Carbon tetrachloride	165	5	5	5	
cis-1,2-Dichloroethene	85	110	210	310	
Tetrachloroethene	10000	12000	13000	18000	
Trichloroethene	1900	2400	3500	6700	
Vinyl chloride	165	5	5	5	
PZ008D		UG/L	UG/L	UG/L	UG/L
Deep					
1,1,1-Trichloroethane	1.6	0.5	0.5	0.5	
1,1-Dichloroethene	0.5	0.5	0.5	0.5	
1,2-Dichloroethane	0.5	0.5	0.5	0.5	
Carbon tetrachloride	0.5	0.5	0.5	0.5	
cis-1,2-Dichloroethene	4.6	4	2	2	
Tetrachloroethene	0.5	1	0.5	0.5	
Trichloroethene	17	4	2	0.5	
Vinyl chloride	0.5	0.5	0.5	0.5	
EW-1		UG/L	UG/L	UG/L	UG/L
Overall Average					
1,1,1-Trichloroethane	60.7	19.2	16.8	17.8	60.7
1,1-Dichloroethene	60.3	2.0	2.0	2.0	60.3
1,2-Dichloroethane	60.3	2.0	2.0	2.0	60.3
Carbon tetrachloride	60.3	2.0	2.0	2.0	60.3
cis-1,2-Dichloroethene	37.2	48.3	83.7	114.0	114.0
Tetrachloroethene	3700.2	4367.0	4666.8	6366.8	6366.8
Trichloroethene	785.7	971.3	1310.7	2380.2	2380.2
Vinyl chloride	60.3	2.0	2.0	2.0	60.3

TABLE B
MW008s

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MW008S	8/2/2001	71-55-6	1,1,1-Trichloroethane	31	U	UG/L	31	15.5	UG/L
MW008S	8/2/2001	75-35-4	1,1-Dichloroethene	31	U	UG/L	31	15.5	UG/L
MW008S	8/2/2001	107-06-2	1,2-Dichloroethane	31	U	UG/L	31	15.5	UG/L
MW008S	8/2/2001	56-23-5	Carbon tetrachloride	31	U	UG/L	31	15.5	UG/L
MW008S	8/2/2001	156-59-2	cis-1,2-Dichloroethene	22		UG/L	16	22	UG/L
MW008S	8/2/2001	127-18-4	Tetrachloroethene	1100		UG/L	31	1100	UG/L
MW008S	8/2/2001	79-01-6	Trichloroethene	440		UG/L	31	440	UG/L
MW008S	8/2/2001	75-01-4	Vinyl chloride	31	U	UG/L	31	15.5	UG/L
MW008S	10/17/2001	71-55-6	1,1,1-Trichloroethane	15		UG/L	1	15	UG/L
MW008S	10/17/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MW008S	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW008S	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW008S	10/17/2001	156-59-2	cis-1,2-Dichloroethene	31		UG/L	1	31	UG/L
MW008S	10/17/2001	127-18-4	Tetrachloroethene	1100		UG/L	10	1100	UG/L
MW008S	10/17/2001	79-01-6	Trichloroethene	510		UG/L	10	510	UG/L
MW008S	10/17/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MW008S	12/12/2001	71-55-6	1,1,1-Trichloroethane	12		UG/L	1	12	UG/L
MW008S	12/12/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MW008S	12/12/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW008S	12/12/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW008S	12/12/2001	156-59-2	cis-1,2-Dichloroethene	39		UG/L	1	39	UG/L
MW008S	12/12/2001	127-18-4	Tetrachloroethene	1000		UG/L	10	1000	UG/L
MW008S	12/12/2001	79-01-6	Trichloroethene	430		UG/L	10	430	UG/L
MW008S	12/12/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MW008S	3/26/2002	71-55-6	1,1,1-Trichloroethane	7		UG/L	1	7	UG/L
MW008S	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MW008S	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW008S	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW008S	3/26/2002	156-59-2	cis-1,2-Dichloroethene	30		UG/L	1	30	UG/L
MW008S	3/26/2002	127-18-4	Tetrachloroethene	1100		UG/L	10	1100	UG/L
MW008S	3/26/2002	79-01-6	Trichloroethene	440		UG/L	10	440	UG/L
MW008S	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE B
 pz008i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
PZ008I	8/2/2001	71-55-6	1,1,1-Trichloroethane	330	U	UG/L	330	165	UG/L
PZ008I	8/2/2001	75-35-4	1,1-Dichloroethene	330	U	UG/L	330	165	UG/L
PZ008I	8/2/2001	107-06-2	1,2-Dichloroethane	330	U	UG/L	330	165	UG/L
PZ008I	8/2/2001	56-23-5	Carbon Tetrachloride	330	U	UG/L	330	165	UG/L
PZ008I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	170	U	UG/L	170	85	UG/L
PZ008I	8/2/2001	127-18-4	Tetrachloroethene	10000		UG/L	330	10000	UG/L
PZ008I	8/2/2001	79-01-6	Trichloroethene	1900		UG/L	330	1900	UG/L
PZ008I	8/2/2001	75-01-4	Vinyl chloride	330	U	UG/L	330	165	UG/L
PZ008I	10/17/2001	71-55-6	1,1,1-Trichloroethane	42	J	UG/L	10	42	UG/L
PZ008I	10/17/2001	75-35-4	1,1-Dichloroethene	10	U	UG/L	10	5	UG/L
PZ008I	10/17/2001	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ008I	10/17/2001	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ008I	10/17/2001	156-59-2	cis-1,2-Dichloroethene	110		UG/L	10	110	UG/L
PZ008I	10/17/2001	127-18-4	Tetrachloroethene	12000		UG/L	100	12000	UG/L
PZ008I	10/17/2001	79-01-6	Trichloroethene	2400		UG/L	10	2400	UG/L
PZ008I	10/17/2001	75-01-4	Vinyl Chloride	10	U	UG/L	10	5	UG/L
PZ008I	12/12/2001	71-55-6	1,1,1-Trichloroethane	38	J	UG/L	10	38	UG/L
PZ008I	12/12/2001	75-35-4	1,1-Dichloroethene	10	U	UG/L	10	5	UG/L
PZ008I	12/12/2001	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ008I	12/12/2001	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ008I	12/12/2001	156-59-2	cis-1,2-Dichloroethene	210		UG/L	10	210	UG/L
PZ008I	12/12/2001	127-18-4	Tetrachloroethene	13000		UG/L	100	13000	UG/L
PZ008I	12/12/2001	79-01-6	Trichloroethene	3500		UG/L	100	3500	UG/L
PZ008I	12/12/2001	75-01-4	Vinyl Chloride	10	U	UG/L	10	5	UG/L
PZ008I	3/26/2002	71-55-6	1,1,1-Trichloroethane	46	J	UG/L	10	46	UG/L
PZ008I	3/26/2002	75-35-4	1,1-Dichloroethene	10	U	UG/L	10	5	UG/L
PZ008I	3/26/2002	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ008I	3/26/2002	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ008I	3/26/2002	156-59-2	cis-1,2-Dichloroethene	310		UG/L	10	310	UG/L
PZ008I	3/26/2002	127-18-4	Tetrachloroethene	18000		UG/L	100	18000	UG/L
PZ008I	3/26/2002	79-01-6	Trichloroethene	6700		UG/L	100	6700	UG/L
PZ008I	3/26/2002	75-01-4	Vinyl Chloride	10	U	UG/L	10	5	UG/L

TABLE B
pz008d

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ008D	8/2/2001	71-55-6	1,1,1-Trichloroethane	1.6		UG/L	1	1.6	UG/L
PZ008D	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	8/2/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ008D	8/2/2001	156-59-2	cis-1,2-Dichloroethene	4.6		UG/L	0.5	4.6	UG/L
PZ008D	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	8/2/2001	79-01-6	Trichloroethene	17		UG/L	1	17	UG/L
PZ008D	8/2/2001	75-01-4	Vinyl chloride	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ008D	10/15/2001	156-59-2	cis-1,2-Dichloroethene	4	J	UG/L	1	4	UG/L
PZ008D	10/15/2001	127-18-4	Tetrachloroethene	1	J	UG/L	1	1	UG/L
PZ008D	10/15/2001	79-01-6	Trichloroethene	4	J	UG/L	1	4	UG/L
PZ008D	10/15/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	156-59-2	cis-1,2-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ008D	12/10/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	12/10/2001	79-01-6	Trichloroethene	2	J	UG/L	1	2	UG/L
PZ008D	12/10/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	156-59-2	cis-1,2-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ008D	3/26/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ008D	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE C
EW2 Summary

Sampling Event					
MWA004	August-01	October-01	December-01	March-02	
	UG/L	UG/L	UG/L	UG/L	
Shallow					
1,1,1-Trichloroethane	500	10	10	10	
1,1-Dichloroethene	500	47	21	41	
1,2-Dichloroethane	500	10	10	10	
Carbon tetrachloride	500	10	10	10	
cis-1,2-Dichloroethene	5400	5100	4000	5500	
Tetrachloroethene	500	27	10	10	
Trichloroethene	25000	26000	27000	24000	
Vinyl chloride	500	1100	1100	490	
Sampling Event					
MW010S	August-01	October-01	December-01	March-02	
	UG/L	UG/L	UG/L	UG/L	
Shallow					
1,1,1-Trichloroethane	100	160	180	100	
1,1-Dichloroethene	100	23	26	15	
1,2-Dichloroethane	100	2.5	2.5	2.5	
Carbon tetrachloride	100	2.5	2.5	2.5	
cis-1,2-Dichloroethene	1000	930	1000	560	
Tetrachloroethene	100	23	56	2.5	
Trichloroethene	7200	7600	8300	5700	
Vinyl chloride	100	9	2.5	43	
Sampling Event					
Average	August-01	October-01	December-01	March-02	
	UG/L	UG/L	UG/L	UG/L	
Shallow					
1,1,1-Trichloroethane	300	85	95	55	
1,1-Dichloroethene	300	35	23.5	28	
1,2-Dichloroethane	300	6.25	6.25	6.25	
Carbon tetrachloride	300	6.25	6.25	6.25	
cis-1,2-Dichloroethene	3200	3015	2500	3030	
Tetrachloroethene	300	25	33	6.25	
Trichloroethene	16100	16800	17650	14850	
Vinyl chloride	300	554.5	551.25	266.5	
Sampling Event					
PZ010I	August-01	October-01	December-01	March-02	
	UG/L	UG/L	UG/L	UG/L	
Intermediate					
1,1,1-Trichloroethane	415	12	12	10	
1,1-Dichloroethene	415	15	5	10	
1,2-Dichloroethane	415	5	5	10	
Carbon tetrachloride	415	5	5	10	
cis-1,2-Dichloroethene	2600	2900	2800	2700	
Tetrachloroethene	415	5	31	10	
Trichloroethene	20000	21000	12000	20000	
Vinyl chloride	415	230	240	73	
Sampling Event					
PZ009D	August-01	October-01	December-01	March-02	
	UG/L	UG/L	UG/L	UG/L	
Deep					
1,1,1-Trichloroethane	41.5	0.5	1.5	1	
1,1-Dichloroethene	41.5	3	1.5	1	
1,2-Dichloroethane	41.5	0.5	1.5	1	
Carbon tetrachloride	41.5	0.5	1.5	1	
cis-1,2-Dichloroethene	150	200	130	130	
Tetrachloroethene	41.5	16	1.5	1	
Trichloroethene	2000	1700	2000	1900	
Vinyl chloride	41.5	18	7	6	
Sampling Event					
EW-2	August-01	October-01	December-01	March-02	Maximum Value
Overall Average					
1,1,1-Trichloroethane	252.2	32.5	36.2	22.0	252.2
1,1-Dichloroethene	252.2	17.7	10.0	13.0	252.2
1,2-Dichloroethane	252.2	3.9	4.3	5.8	252.2
Carbon tetrachloride	252.2	3.9	4.3	5.8	252.2
cis-1,2-Dichloroethene	1983.3	2038.3	1810.0	1953.3	2038.3
Tetrachloroethene	252.2	15.3	21.8	5.8	252.2
Trichloroethene	12700.0	13166.7	10550.0	12250.0	13166.7
Vinyl chloride	252.2	267.5	266.1	115.2	267.5

TABLE C
mwa004

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWA004	8/2/2001	71-55-6	1,1,1-Trichloroethane	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	75-35-4	1,1-Dichloroethene	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	107-06-2	1,2-Dichloroethane	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	56-23-5	Carbon tetrachloride	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	156-59-2	cis-1,2-Dichloroethene	5400		UG/L	500	5400	UG/L
MWA004	8/2/2001	127-18-4	Tetrachloroethene	1000	U	UG/L	1000	500	UG/L
MWA004	8/2/2001	79-01-6	Trichloroethene	25000		UG/L	1000	25000	UG/L
MWA004	8/2/2001	75-01-4	Vinyl chloride	1000	U	UG/L	1000	500	UG/L
MWA004	10/17/2001	71-55-6	1,1,1-Trichloroethane	20	J	UG/L	20	10	UG/L
MWA004	10/17/2001	75-35-4	1,1-Dichloroethene	47	J	UG/L	20	47	UG/L
MWA004	10/17/2001	107-06-2	1,2-Dichloroethane	20	U	UG/L	20	10	UG/L
MWA004	10/17/2001	56-23-5	Carbon Tetrachloride	20	U	UG/L	20	10	UG/L
MWA004	10/17/2001	156-59-2	cis-1,2-Dichloroethene	5100		UG/L	20	5100	UG/L
MWA004	10/17/2001	127-18-4	Tetrachloroethene	27	J	UG/L	20	27	UG/L
MWA004	10/17/2001	79-01-6	Trichloroethene	26000		UG/L	100	26000	UG/L
MWA004	10/17/2001	75-01-4	Vinyl Chloride	1100		UG/L	20	1100	UG/L
MWA004	12/12/2001	71-55-6	1,1,1-Trichloroethane	20	U	UG/L	20	10	UG/L
MWA004	12/12/2001	75-35-4	1,1-Dichloroethene	21	J	UG/L	20	21	UG/L
MWA004	12/12/2001	107-06-2	1,2-Dichloroethane	20	U	UG/L	20	10	UG/L
MWA004	12/12/2001	56-23-5	Carbon Tetrachloride	20	U	UG/L	20	10	UG/L
MWA004	12/12/2001	156-59-2	cis-1,2-Dichloroethene	4000		UG/L	20	4000	UG/L
MWA004	12/12/2001	127-18-4	Tetrachloroethene	20	U	UG/L	20	10	UG/L
MWA004	12/12/2001	79-01-6	Trichloroethene	27000		UG/L	250	27000	UG/L
MWA004	12/12/2001	75-01-4	Vinyl Chloride	1100		UG/L	20	1100	UG/L
MWA004	3/26/2002	71-55-6	1,1,1-Trichloroethane	20	U	UG/L	20	10	UG/L
MWA004	3/26/2002	75-35-4	1,1-Dichloroethene	41	J	UG/L	20	41	UG/L
MWA004	3/26/2002	107-06-2	1,2-Dichloroethane	20	U	UG/L	20	10	UG/L
MWA004	3/26/2002	56-23-5	Carbon Tetrachloride	20	U	UG/L	20	10	UG/L
MWA004	3/26/2002	156-59-2	cis-1,2-Dichloroethene	5500		UG/L	20	5500	UG/L
MWA004	3/26/2002	127-18-4	Tetrachloroethene	20	U	UG/L	20	10	UG/L
MWA004	3/26/2002	79-01-6	Trichloroethene	24000		UG/L	200	24000	UG/L
MWA004	3/26/2002	75-01-4	Vinyl Chloride	490		UG/L	20	490	UG/L

TABLE C
mw010s

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
MW010S	8/2/2001	71-55-6	1,1,1-Trichloroethane	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	75-35-4	1,1-Dichloroethene	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	107-06-2	1,2-Dichloroethane	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	56-23-5	Carbon tetrachloride	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	156-59-2	cis-1,2-Dichloroethene	1000		UG/L	100	1000	UG/L
MW010S	8/2/2001	127-18-4	Tetrachloroethene	200	U	UG/L	200	100	UG/L
MW010S	8/2/2001	79-01-6	Trichloroethene	7200		UG/L	200	7200	UG/L
MW010S	8/2/2001	75-01-4	Vinyl chloride	200	U	UG/L	200	100	UG/L
MW010S	10/17/2001	71-55-6	1,1,1-Trichloroethane	160		UG/L	5	160	UG/L
MW010S	10/17/2001	75-35-4	1,1-Dichloroethene	23	J	UG/L	5	23	UG/L
MW010S	10/17/2001	107-06-2	1,2-Dichloroethane	5	U	UG/L	5	2.5	UG/L
MW010S	10/17/2001	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MW010S	10/17/2001	156-59-2	cis-1,2-Dichloroethene	930		UG/L	5	930	UG/L
MW010S	10/17/2001	127-18-4	Tetrachloroethene	23	J	UG/L	5	23	UG/L
MW010S	10/17/2001	79-01-6	Trichloroethene	7600		UG/L	50	7600	UG/L
MW010S	10/17/2001	75-01-4	Vinyl Chloride	9	J	UG/L	5	9	UG/L
MW010S	12/12/2001	71-55-6	1,1,1-Trichloroethane	180		UG/L	5	180	UG/L
MW010S	12/12/2001	75-35-4	1,1-Dichloroethene	26		UG/L	5	26	UG/L
MW010S	12/12/2001	107-06-2	1,2-Dichloroethane	5	U	UG/L	5	2.5	UG/L
MW010S	12/12/2001	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MW010S	12/12/2001	156-59-2	cis-1,2-Dichloroethene	1000		UG/L	5	1000	UG/L
MW010S	12/12/2001	127-18-4	Tetrachloroethene	56		UG/L	5	56	UG/L
MW010S	12/12/2001	79-01-6	Trichloroethene	8300		UG/L	50	8300	UG/L
MW010S	12/12/2001	75-01-4	Vinyl Chloride	5	U	UG/L	5	2.5	UG/L
MW010S	3/27/2002	71-55-6	1,1,1-Trichloroethane	100		UG/L	5	100	UG/L
MW010S	3/27/2002	75-35-4	1,1-Dichloroethene	15	J	UG/L	5	15	UG/L
MW010S	3/27/2002	107-06-2	1,2-Dichloroethane	5	U	UG/L	5	2.5	UG/L
MW010S	3/27/2002	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MW010S	3/27/2002	156-59-2	cis-1,2-Dichloroethene	560		UG/L	5	560	UG/L
MW010S	3/27/2002	127-18-4	Tetrachloroethene	5	U	UG/L	5	2.5	UG/L
MW010S	3/27/2002	79-01-6	Trichloroethene	5700		UG/L	50	5700	UG/L
MW010S	3/27/2002	75-01-4	Vinyl Chloride	43		UG/L	5	43	UG/L

TABLE C
pz010i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
PZ010I	8/2/2001	71-55-6	1,1,1-Trichloroethane	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	75-35-4	1,1-Dichloroethene	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	107-06-2	1,2-Dichloroethane	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	56-23-5	Carbon tetrachloride	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	2600		UG/L	420	2600	UG/L
PZ010I	8/2/2001	127-18-4	Tetrachloroethene	830	U	UG/L	830	415	UG/L
PZ010I	8/2/2001	79-01-6	Trichloroethene	20000		UG/L	830	20000	UG/L
PZ010I	8/2/2001	75-01-4	Vinyl chloride	830	U	UG/L	830	415	UG/L
PZ010I	10/17/2001	71-55-6	1,1,1-Trichloroethane	12	J	UG/L	10	12	UG/L
PZ010I	10/17/2001	75-35-4	1,1-Dichloroethene	15	J	UG/L	10	15	UG/L
PZ010I	10/17/2001	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ010I	10/17/2001	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ010I	10/17/2001	156-59-2	cis-1,2-Dichloroethene	2900		UG/L	10	2900	UG/L
PZ010I	10/17/2001	127-18-4	Tetrachloroethene	10	U	UG/L	10	5	UG/L
PZ010I	10/17/2001	79-01-6	Trichloroethene	21000		UG/L	100	21000	UG/L
PZ010I	10/17/2001	75-01-4	Vinyl Chloride	230		UG/L	10	230	UG/L
PZ010I	12/12/2001	71-55-6	1,1,1-Trichloroethane	12	J	UG/L	10	12	UG/L
PZ010I	12/12/2001	75-35-4	1,1-Dichloroethene	10	U	UG/L	10	5	UG/L
PZ010I	12/12/2001	107-06-2	1,2-Dichloroethane	10	U	UG/L	10	5	UG/L
PZ010I	12/12/2001	56-23-5	Carbon Tetrachloride	10	U	UG/L	10	5	UG/L
PZ010I	12/12/2001	156-59-2	cis-1,2-Dichloroethene	2800		UG/L	10	2800	UG/L
PZ010I	12/12/2001	127-18-4	Tetrachloroethene	31	J	UG/L	10	31	UG/L
PZ010I	12/12/2001	79-01-6	Trichloroethene	12000		UG/L	100	12000	UG/L
PZ010I	12/12/2001	75-01-4	Vinyl Chloride	240		UG/L	10	240	UG/L
PZ010I	3/27/2002	71-55-6	1,1,1-Trichloroethane	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	75-35-4	1,1-Dichloroethene	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	107-06-2	1,2-Dichloroethane	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	56-23-5	Carbon Tetrachloride	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	156-59-2	cis-1,2-Dichloroethene	2700		UG/L	20	2700	UG/L
PZ010I	3/27/2002	127-18-4	Tetrachloroethene	20	U	UG/L	20	10	UG/L
PZ010I	3/27/2002	79-01-6	Trichloroethene	20000		UG/L	100	20000	UG/L
PZ010I	3/27/2002	75-01-4	Vinyl Chloride	73	J	UG/L	20	73	UG/L

TABLE C
pz009d

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ009D	8/2/2001	71-55-6	1,1,1-Trichloroethane	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	75-35-4	1,1-Dichloroethene	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	107-06-2	1,2-Dichloroethane	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	56-23-5	Carbon Tetrachloride	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	156-59-2	cis-1,2-Dichloroethene	150		UG/L	42	150	UG/L
PZ009D	8/2/2001	127-18-4	Tetrachloroethene	83	U	UG/L	83	41.5	UG/L
PZ009D	8/2/2001	79-01-6	Trichloroethene	2000		UG/L	83	2000	UG/L
PZ009D	8/2/2001	75-01-4	Vinyl chloride	83	U	UG/L	83	41.5	UG/L
PZ009D	10/17/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ009D	10/17/2001	75-35-4	1,1-Dichloroethene	3	J	UG/L	1	3	UG/L
PZ009D	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ009D	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ009D	10/17/2001	156-59-2	cis-1,2-Dichloroethene	200		UG/L	1	200	UG/L
PZ009D	10/17/2001	127-18-4	Tetrachloroethene	16		UG/L	1	16	UG/L
PZ009D	10/17/2001	79-01-6	Trichloroethene	1700		UG/L	20	1700	UG/L
PZ009D	10/17/2001	75-01-4	Vinyl Chloride	18		UG/L	1	18	UG/L
PZ009D	12/12/2001	71-55-6	1,1,1-Trichloroethane	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	75-35-4	1,1-Dichloroethene	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	107-06-2	1,2-Dichloroethane	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	56-23-5	Carbon Tetrachloride	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	156-59-2	cis-1,2-Dichloroethene	130		UG/L	3	130	UG/L
PZ009D	12/12/2001	127-18-4	Tetrachloroethene	3	U	UG/L	3	1.5	UG/L
PZ009D	12/12/2001	79-01-6	Trichloroethene	2000		UG/L	20	2000	UG/L
PZ009D	12/12/2001	75-01-4	Vinyl Chloride	7	J	UG/L	3	7	UG/L
PZ009D	3/26/2002	71-55-6	1,1,1-Trichloroethane	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	75-35-4	1,1-Dichloroethene	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	156-59-2	cis-1,2-Dichloroethene	130		UG/L	2	130	UG/L
PZ009D	3/26/2002	127-18-4	Tetrachloroethene	2	U	UG/L	2	1	UG/L
PZ009D	3/26/2002	79-01-6	Trichloroethene	1900		UG/L	20	1900	UG/L
PZ009D	3/26/2002	75-01-4	Vinyl Chloride	6	J	UG/L	2	6	UG/L

TABLE D
EW3 Summary

		Sampling Event			
		August-01	October-01	December-01	March-02
MW01S		UG/L	UG/L	UG/L	UG/L
Shallow					
1,1,1-Trichloroethane		33.5	57	59	42
1,1-Dichloroethene		33.5	6	7	3
1,2-Dichloroethane		33.5	0.5	0.5	0.5
Carbon tetrachloride		33.5	0.5	0.5	0.5
cis-1,2-Dichloroethene		270	180	210	150
Tetrachloroethene		33.5	25	4	1
Trichloroethene		2500	1800	2200	1200
Vinyl chloride		33.5	4	11	13
		Sampling Event			
MWB003		August-01	October-01	December-01	March-02
Intermediate		UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane		290	300	280	380
1,1-Dichloroethene		100	69	67	110
1,2-Dichloroethane		100	50	37	74
Carbon tetrachloride		100	2.5	2.5	0.5
cis-1,2-Dichloroethene		2100	2000	1600	2100
Tetrachloroethene		100	60	2.5	0.5
Trichloroethene		7200	6800	6800	5800
Vinyl chloride		100	25	18	23
		Sampling Event			
MWC003		August-01	October-01	December-01	March-02
Deep		UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane		0.5	0.5	0.5	0.5
1,1-Dichloroethene		0.5	0.5	0.5	0.5
1,2-Dichloroethane		0.5	0.5	0.5	0.5
Carbon tetrachloride		0.5	0.5	0.5	0.5
cis-1,2-Dichloroethene		2.6	0.5	0.5	0.5
Tetrachloroethene		0.5	0.5	0.5	0.5
Trichloroethene		25	1	0.5	0.5
Vinyl chloride		0.5	0.5	0.5	0.5
		Sampling Event			Maximum
EW-3		August-01	October-01	December-01	March-02
Overall Average		UG/L	UG/L	UG/L	Value UG/L
1,1,1-Trichloroethane		108.0	119.2	113.2	140.8
1,1-Dichloroethene		44.7	25.2	24.8	44.7
1,2-Dichloroethane		44.7	17.0	12.7	44.7
Carbon tetrachloride		44.7	1.2	1.2	44.7
cis-1,2-Dichloroethene		790.9	726.8	603.5	790.9
Tetrachloroethene		44.7	28.5	2.3	44.7
Trichloroethene		3241.7	2867.0	3000.2	3241.7
Vinyl chloride		44.7	9.8	9.8	44.7

TABLE D
mw011s

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
MW011S	8/2/2001	71-55-6	1,1,1-Trichloroethane	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	75-35-4	1,1-Dichloroethene	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	107-06-2	1,2-Dichloroethane	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	56-23-5	Carbon tetrachloride	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	156-59-2	cis-1,2-Dichloroethene	270		UG/L	33	270	UG/L
MW011S	8/2/2001	127-18-4	Tetrachloroethene	67	U	UG/L	67	33.5	UG/L
MW011S	8/2/2001	79-01-6	Trichloroethene	2500		UG/L	67	2500	UG/L
MW011S	8/2/2001	75-01-4	Vinyl chloride	67	U	UG/L	67	33.5	UG/L
MW011S	10/17/2001	71-55-6	1,1,1-Trichloroethane	57		UG/L	1	57	UG/L
MW011S	10/17/2001	75-35-4	1,1-Dichloroethene	6		UG/L	1	6	UG/L
MW011S	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW011S	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW011S	10/17/2001	156-59-2	cis-1,2-Dichloroethene	180		UG/L	1	180	UG/L
MW011S	10/17/2001	127-18-4	Tetrachloroethene	25		UG/L	1	25	UG/L
MW011S	10/17/2001	79-01-6	Trichloroethene	1800		UG/L	20	1800	UG/L
MW011S	10/17/2001	75-01-4	Vinyl Chloride	4	J	UG/L	1	4	UG/L
MW011S	12/12/2001	71-55-6	1,1,1-Trichloroethane	59		UG/L	1	59	UG/L
MW011S	12/12/2001	75-35-4	1,1-Dichloroethene	7		UG/L	1	7	UG/L
MW011S	12/12/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW011S	12/12/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW011S	12/12/2001	156-59-2	cis-1,2-Dichloroethene	210		UG/L	20	210	UG/L
MW011S	12/12/2001	127-18-4	Tetrachloroethene	4	J	UG/L	1	4	UG/L
MW011S	12/12/2001	79-01-6	Trichloroethene	2200		UG/L	20	2200	UG/L
MW011S	12/12/2001	75-01-4	Vinyl Chloride	11		UG/L	1	11	UG/L
MW011S	3/27/2002	71-55-6	1,1,1-Trichloroethane	42		UG/L	1	42	UG/L
MW011S	3/27/2002	75-35-4	1,1-Dichloroethene	3	J	UG/L	1	3	UG/L
MW011S	3/27/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW011S	3/27/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW011S	3/27/2002	156-59-2	cis-1,2-Dichloroethene	150		UG/L	1	150	UG/L
MW011S	3/27/2002	127-18-4	Tetrachloroethene	1	J	UG/L	1	1	UG/L
MW011S	3/27/2002	79-01-6	Trichloroethene	1200		UG/L	10	1200	UG/L
MW011S	3/27/2002	75-01-4	Vinyl Chloride	13		UG/L	1	13	UG/L

TABLE D
mwb003

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWB003	8/2/2001	71-55-6	1,1,1-Trichloroethane	290		UG/L	200	290	UG/L
MWB003	8/2/2001	75-35-4	1,1-Dichloroethene	200	U	UG/L	200	100	UG/L
MWB003	8/2/2001	107-06-2	1,2-Dichloroethane	200	U	UG/L	200	100	UG/L
MWB003	8/2/2001	56-23-5	Carbon tetrachloride	200	U	UG/L	200	100	UG/L
MWB003	8/2/2001	156-59-2	cis-1,2-Dichloroethene	2100		UG/L	100	2100	UG/L
MWB003	8/2/2001	127-18-4	Tetrachloroethene	200	U	UG/L	200	100	UG/L
MWB003	8/2/2001	79-01-6	Trichloroethene	7200		UG/L	200	7200	UG/L
MWB003	8/2/2001	75-01-4	Vinyl chloride	200	U	UG/L	200	100	UG/L
MWB003	10/17/2001	71-55-6	1,1,1-Trichloroethane	300		UG/L	5	300	UG/L
MWB003	10/17/2001	75-35-4	1,1-Dichloroethene	69		UG/L	5	69	UG/L
MWB003	10/17/2001	107-06-2	1,2-Dichloroethane	50		UG/L	5	50	UG/L
MWB003	10/17/2001	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MWB003	10/17/2001	156-59-2	cis-1,2-Dichloroethene	2000		UG/L	50	2000	UG/L
MWB003	10/17/2001	127-18-4	Tetrachloroethene	60		UG/L	5	60	UG/L
MWB003	10/17/2001	79-01-6	Trichloroethene	6800		UG/L	50	6800	UG/L
MWB003	10/17/2001	75-01-4	Vinyl Chloride	25		UG/L	5	25	UG/L
MWB003	12/12/2001	71-55-6	1,1,1-Trichloroethane	280		UG/L	5	280	UG/L
MWB003	12/12/2001	75-35-4	1,1-Dichloroethene	67		UG/L	5	67	UG/L
MWB003	12/12/2001	107-06-2	1,2-Dichloroethane	37		UG/L	5	37	UG/L
MWB003	12/12/2001	56-23-5	Carbon Tetrachloride	5	U	UG/L	5	2.5	UG/L
MWB003	12/12/2001	156-59-2	cis-1,2-Dichloroethene	1600		UG/L	50	1600	UG/L
MWB003	12/12/2001	127-18-4	Tetrachloroethene	5	U	UG/L	5	2.5	UG/L
MWB003	12/12/2001	79-01-6	Trichloroethene	6800		UG/L	50	6800	UG/L
MWB003	12/12/2001	75-01-4	Vinyl Chloride	18	J	UG/L	5	18	UG/L
MWB003	3/27/2002	71-55-6	1,1,1-Trichloroethane	380		UG/L	50	380	UG/L
MWB003	3/27/2002	75-35-4	1,1-Dichloroethene	110		UG/L	1	110	UG/L
MWB003	3/27/2002	107-06-2	1,2-Dichloroethane	74		UG/L	1	74	UG/L
MWB003	3/27/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWB003	3/27/2002	156-59-2	cis-1,2-Dichloroethene	2100		UG/L	50	2100	UG/L
MWB003	3/27/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWB003	3/27/2002	79-01-6	Trichloroethene	5800		UG/L	50	5800	UG/L
MWB003	3/27/2002	75-01-4	Vinyl Chloride	23		UG/L	1	23	UG/L

TABLE D
mwc003

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
MWC003	8/2/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	156-59-2	cis-1,2-Dichloroethene	2.6		UG/L	0.5	2.6	UG/L
MWC003	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	8/2/2001	79-01-6	Trichloroethene	25		UG/L	1	25	UG/L
MWC003	8/2/2001	75-01-4	Vinyl chloride	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	10/15/2001	79-01-6	Trichloroethene	1	J	UG/L	1	1	UG/L
MWC003	10/15/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	12/10/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
MWC003	3/27/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE E
EW4 Summary

Sampling Event					
	August-01	October-01	December-01	March-02	
MWA006					
Shallow	UG/L	UG/L	UG/L	UG/L	
1,1,1-Trichloroethane	540	580	540	340	
1,1-Dichloroethene	110	130	140	120	
1,2-Dichloroethane	50	1	1	3	
Carbon tetrachloride	50	1	1	1	
cis-1,2-Dichloroethene	700	950	480	1600	
Tetrachloroethene	50	6	1	1	
Trichloroethene	3000	2700	2300	1800	
Vinyl chloride	50	10	8	5	
Sampling Event					
PZ012I	August-01	October-01	December-01	March-02	
Intermediate	UG/L	UG/L	UG/L	UG/L	
1,1,1-Trichloroethane	9	0.5	0.5	0.5	
1,1-Dichloroethene	9	2	2	2	
1,2-Dichloroethane	9	0.5	0.5	0.5	
Carbon tetrachloride	9	0.5	0.5	0.5	
cis-1,2-Dichloroethene	370	420	500	450	
Tetrachloroethene	9	0.5	1	0.5	
Trichloroethene	61	91	110	110	
Vinyl chloride	9	2	3	2	
Sampling Event					
PZ012D	August-01	October-01	December-01	March-02	
Deep	UG/L	UG/L	UG/L	UG/L	
1,1,1-Trichloroethane	4.1	0.5	0.5	0.5	
1,1-Dichloroethene	0.5	0.5	0.5	0.5	
1,2-Dichloroethane	0.5	0.5	0.5	0.5	
Carbon tetrachloride	0.5	0.5	0.5	0.5	
cis-1,2-Dichloroethene	5.8	0.5	0.5	0.5	
Tetrachloroethene	0.5	0.5	0.5	0.5	
Trichloroethene	39	2	2	1	
Vinyl chloride	0.5	0.5	0.5	0.5	
Sampling Event					
EW-4	August-01	October-01	December-01	March-02	Maximum
Overall Average	UG/L	UG/L	UG/L	UG/L	Value
1,1,1-Trichloroethane	184.4	193.7	180.3	113.7	193.7
1,1-Dichloroethene	39.8	44.2	47.5	40.8	47.5
1,2-Dichloroethane	19.8	0.7	0.7	1.3	19.8
Carbon tetrachloride	19.8	0.7	0.7	0.7	19.8
cis-1,2-Dichloroethene	358.6	456.8	326.8	683.5	683.5
Tetrachloroethene	19.8	2.3	0.8	0.7	19.8
Trichloroethene	1033.3	931.0	804.0	637.0	1033.3
Vinyl chloride	19.8	4.2	3.8	2.5	19.8

TABLE E
mwa006

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
MWA006	8/2/2001	71-55-6	1,1,1-Trichloroethane	540		UG/L	100	540	UG/L
MWA006	8/2/2001	75-35-4	1,1-Dichloroethene	110		UG/L	100	110	UG/L
MWA006	8/2/2001	107-06-2	1,2-Dichloroethane	100	U	UG/L	100	50	UG/L
MWA006	8/2/2001	56-23-5	Carbon Tetrachloride	100	U	UG/L	100	50	UG/L
MWA006	8/2/2001	156-59-2	cis-1,2-Dichloroethene	700		UG/L	50	700	UG/L
MWA006	8/2/2001	127-18-4	Tetrachloroethene	100	U	UG/L	100	50	UG/L
MWA006	8/2/2001	79-01-6	Trichloroethene	3000		UG/L	100	3000	UG/L
MWA006	8/2/2001	75-01-4	Vinyl chloride	100	U	UG/L	100	50	UG/L
MWA006	10/17/2001	71-55-6	1,1,1-Trichloroethane	580		UG/L	2	580	UG/L
MWA006	10/17/2001	75-35-4	1,1-Dichloroethene	130		UG/L	2	130	UG/L
MWA006	10/17/2001	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
MWA006	10/17/2001	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
MWA006	10/17/2001	156-59-2	cis-1,2-Dichloroethene	950		UG/L	25	950	UG/L
MWA006	10/17/2001	127-18-4	Tetrachloroethene	6	J	UG/L	2	6	UG/L
MWA006	10/17/2001	79-01-6	Trichloroethene	2700		UG/L	25	2700	UG/L
MWA006	10/17/2001	75-01-4	Vinyl Chloride	10	J	UG/L	2	10	UG/L
MWA006	12/12/2001	71-55-6	1,1,1-Trichloroethane	540		UG/L	2	540	UG/L
MWA006	12/12/2001	75-35-4	1,1-Dichloroethene	140		UG/L	2	140	UG/L
MWA006	12/12/2001	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
MWA006	12/12/2001	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
MWA006	12/12/2001	156-59-2	cis-1,2-Dichloroethene	480		UG/L	25	480	UG/L
MWA006	12/12/2001	127-18-4	Tetrachloroethene	2	U	UG/L	2	1	UG/L
MWA006	12/12/2001	79-01-6	Trichloroethene	2300		UG/L	25	2300	UG/L
MWA006	12/12/2001	75-01-4	Vinyl Chloride	8	J	UG/L	2	8	UG/L
MWA006	3/27/2002	71-55-6	1,1,1-Trichloroethane	340		UG/L	2	340	UG/L
MWA006	3/27/2002	75-35-4	1,1-Dichloroethene	120		UG/L	2	120	UG/L
MWA006	3/27/2002	107-06-2	1,2-Dichloroethane	3	J	UG/L	2	3	UG/L
MWA006	3/27/2002	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
MWA006	3/27/2002	156-59-2	cis-1,2-Dichloroethene	1600		UG/L	20	1600	UG/L
MWA006	3/27/2002	127-18-4	Tetrachloroethene	2	U	UG/L	2	1	UG/L
MWA006	3/27/2002	79-01-6	Trichloroethene	1800		UG/L	20	1800	UG/L
MWA006	3/27/2002	75-01-4	Vinyl Chloride	5	J	UG/L	2	5	UG/L

TABLE E
pz0012i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ012I	8/2/2001	71-55-6	1,1,1-Trichloroethane	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	75-35-4	1,1-Dichloroethene	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	107-06-2	1,2-Dichloroethane	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	56-23-5	Carbon tetrachloride	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	370		UG/L	9.1	370	UG/L
PZ012I	8/2/2001	127-18-4	Tetrachloroethene	18	U	UG/L	18	9	UG/L
PZ012I	8/2/2001	79-01-6	Trichloroethene	61		UG/L	18	61	UG/L
PZ012I	8/2/2001	75-01-4	Vinyl chloride	18	U	UG/L	18	9	UG/L
PZ012I	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	10/15/2001	75-35-4	1,1-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ012I	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012I	10/15/2001	156-59-2	cis-1,2-Dichloroethene	420		UG/L	5	420	UG/L
PZ012I	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012I	10/15/2001	79-01-6	Trichloroethene	91		UG/L	1	91	UG/L
PZ012I	10/15/2001	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L
PZ012I	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	12/10/2001	75-35-4	1,1-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ012I	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012I	12/10/2001	156-59-2	cis-1,2-Dichloroethene	500		UG/L	5	500	UG/L
PZ012I	12/10/2001	127-18-4	Tetrachloroethene	1	J	UG/L	1	1	UG/L
PZ012I	12/10/2001	79-01-6	Trichloroethene	110		UG/L	1	110	UG/L
PZ012I	12/10/2001	75-01-4	Vinyl Chloride	3	J	UG/L	1	3	UG/L
PZ012I	3/26/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	3/26/2002	75-35-4	1,1-Dichloroethene	2	J	UG/L	1	2	UG/L
PZ012I	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012I	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012I	3/26/2002	156-59-2	cis-1,2-Dichloroethene	450		UG/L	5	450	UG/L
PZ012I	3/26/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012I	3/26/2002	79-01-6	Trichloroethene	110		UG/L	1	110	UG/L
PZ012I	3/26/2002	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L

TABLE E
pz0012d

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
PZ012D	8/2/2001	71-55-6	1,1,1-Trichloroethane	4.1		UG/L	1	4.1	UG/L
PZ012D	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	8/2/2001	56-23-5	Carbon tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012D	8/2/2001	156-59-2	cis-1,2-Dichloroethene	5.8		UG/L	0.5	5.8	UG/L
PZ012D	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	8/2/2001	79-01-6	Trichloroethene	39		UG/L	1	39	UG/L
PZ012D	8/2/2001	75-01-4	Vinyl chloride	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	10/15/2001	79-01-6	Trichloroethene	2	J	UG/L	1	2	UG/L
PZ012D	10/15/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	12/10/2001	79-01-6	Trichloroethene	2	J	UG/L	1	2	UG/L
PZ012D	12/10/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ012D	3/26/2002	79-01-6	Trichloroethene	1	J	UG/L	1	1	UG/L
PZ012D	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE F
EW5 Summary

Sampling Event				
MWA005	August-01	October-01	December-01	March-02
Shallow	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	2600	1900	2000	1900
1,1-Dichloroethene	340	300	340	330
1,2-Dichloroethane	50	6	5	4
Carbon tetrachloride	50	0.5	0.5	0.5
cis-1,2-Dichloroethene	150	170	160	150
Tetrachloroethene	50	85	68	83
Trichloroethene	1700	1500	1600	1500
Vinyl chloride	50	0.5	0.5	0.5

Sampling Event				
PZ013I	August-01	October-01	December-01	March-02
Intermediate	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	740	600	470	450
1,1-Dichloroethene	88	56	39	39
1,2-Dichloroethane	15.5	1	0.5	0.5
Carbon tetrachloride	15.5	130	0.5	0.5
cis-1,2-Dichloroethene	93	79	74	78
Tetrachloroethene	560	550	690	890
Trichloroethene	1100	750	480	390
Vinyl chloride	15.5	6	4	2

EW-5	Sampling Event				Maximum Value
	August-01	October-01	December-01	March-02	
Overall Average	UG/L	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	1670.0	1250.0	1235.0	1175.0	1670.0
1,1-Dichloroethene	214.0	178.0	189.5	184.5	214.0
1,2-Dichloroethane	32.8	3.5	2.8	2.3	32.8
Carbon tetrachloride	32.8	65.3	0.5	0.5	65.3
cis-1,2-Dichloroethene	121.5	124.5	117.0	114.0	124.5
Tetrachloroethene	305.0	317.5	379.0	486.5	486.5
Trichloroethene	1400.0	1125.0	1040.0	945.0	1400.0
Vinyl chloride	32.8	3.3	2.3	1.3	32.8

TABLE F
mwa005

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
MWA005	8/2/2001	71-55-6	1,1,1-Trichloroethane	2600		UG/L	100	2600	UG/L
MWA005	8/2/2001	75-35-4	1,1-Dichloroethene	340		UG/L	100	340	UG/L
MWA005	8/2/2001	107-06-2	1,2-Dichloroethane	100	U	UG/L	100	50	UG/L
MWA005	8/2/2001	56-23-5	Carbon tetrachloride	100	U	UG/L	100	50	UG/L
MWA005	8/2/2001	156-59-2	cis-1,2-Dichloroethene	150		UG/L	50	150	UG/L
MWA005	8/2/2001	127-18-4	Tetrachloroethene	100	U	UG/L	100	50	UG/L
MWA005	8/2/2001	79-01-6	Trichloroethene	1700		UG/L	100	1700	UG/L
MWA005	8/2/2001	75-01-4	Vinyl chloride	100	U	UG/L	100	50	UG/L
MWA005	10/17/2001	71-55-6	1,1,1-Trichloroethane	1900		UG/L	20	1900	UG/L
MWA005	10/17/2001	75-35-4	1,1-Dichloroethene	300		UG/L	20	300	UG/L
MWA005	10/17/2001	107-06-2	1,2-Dichloroethane	6		UG/L	1	6	UG/L
MWA005	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA005	10/17/2001	156-59-2	cis-1,2-Dichloroethene	170		UG/L	1	170	UG/L
MWA005	10/17/2001	127-18-4	Tetrachloroethene	85		UG/L	1	85	UG/L
MWA005	10/17/2001	79-01-6	Trichloroethene	1500		UG/L	20	1500	UG/L
MWA005	10/17/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWA005	12/12/2001	71-55-6	1,1,1-Trichloroethane	2000		UG/L	10	2000	UG/L
MWA005	12/12/2001	75-35-4	1,1-Dichloroethene	340		UG/L	10	340	UG/L
MWA005	12/12/2001	107-06-2	1,2-Dichloroethane	5	J	UG/L	1	5	UG/L
MWA005	12/12/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA005	12/12/2001	156-59-2	cis-1,2-Dichloroethene	160		UG/L	1	160	UG/L
MWA005	12/12/2001	127-18-4	Tetrachloroethene	68		UG/L	1	68	UG/L
MWA005	12/12/2001	79-01-6	Trichloroethene	1600		UG/L	10	1600	UG/L
MWA005	12/12/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWA005	3/26/2002	71-55-6	1,1,1-Trichloroethane	1900		UG/L	20	1900	UG/L
MWA005	3/26/2002	75-35-4	1,1-Dichloroethene	330		UG/L	20	330	UG/L
MWA005	3/26/2002	107-06-2	1,2-Dichloroethane	4	J	UG/L	1	4	UG/L
MWA005	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA005	3/26/2002	156-59-2	cis-1,2-Dichloroethene	150		UG/L	1	150	UG/L
MWA005	3/26/2002	127-18-4	Tetrachloroethene	83		UG/L	1	83	UG/L
MWA005	3/26/2002	79-01-6	Trichloroethene	1500		UG/L	20	1500	UG/L
MWA005	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE F
 pz013i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ013I	8/2/2001	71-55-6	1,1,1-Trichloroethane	740		UG/L	31	740	UG/L
PZ013I	8/2/2001	75-35-4	1,1-Dichloroethene	88		UG/L	31	88	UG/L
PZ013I	8/2/2001	107-06-2	1,2-Dichloroethane	31	U	UG/L	31	15.5	UG/L
PZ013I	8/2/2001	56-23-5	Carbon tetrachloride	31	U	UG/L	31	15.5	UG/L
PZ013I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	93		UG/L	16	93	UG/L
PZ013I	8/2/2001	127-18-4	Tetrachloroethene	560		UG/L	31	560	UG/L
PZ013I	8/2/2001	79-01-6	Trichloroethene	1100		UG/L	31	1100	UG/L
PZ013I	8/2/2001	75-01-4	Vinyl chloride	31	U	UG/L	31	15.5	UG/L
PZ013I	10/17/2001	71-55-6	1,1,1-Trichloroethane	600		UG/L	10	600	UG/L
PZ013I	10/17/2001	75-35-4	1,1-Dichloroethene	56		UG/L	1	56	UG/L
PZ013I	10/17/2001	107-06-2	1,2-Dichloroethane	1	J	UG/L	1	1	UG/L
PZ013I	10/17/2001	56-23-5	Carbon Tetrachloride	130		UG/L	1	130	UG/L
PZ013I	10/17/2001	156-59-2	cis-1,2-Dichloroethene	79		UG/L	1	79	UG/L
PZ013I	10/17/2001	127-18-4	Tetrachloroethene	550		UG/L	10	550	UG/L
PZ013I	10/17/2001	79-01-6	Trichloroethene	750		UG/L	10	750	UG/L
PZ013I	10/17/2001	75-01-4	Vinyl Chloride	6		UG/L	1	6	UG/L
PZ013I	12/12/2001	71-55-6	1,1,1-Trichloroethane	470		UG/L	5	470	UG/L
PZ013I	12/12/2001	75-35-4	1,1-Dichloroethene	39		UG/L	1	39	UG/L
PZ013I	12/12/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ013I	12/12/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ013I	12/12/2001	156-59-2	cis-1,2-Dichloroethene	74		UG/L	1	74	UG/L
PZ013I	12/12/2001	127-18-4	Tetrachloroethene	690		UG/L	5	690	UG/L
PZ013I	12/12/2001	79-01-6	Trichloroethene	480		UG/L	5	480	UG/L
PZ013I	12/12/2001	75-01-4	Vinyl Chloride	4	J	UG/L	1	4	UG/L
PZ013I	3/26/2002	71-55-6	1,1,1-Trichloroethane	450		UG/L	10	450	UG/L
PZ013I	3/26/2002	75-35-4	1,1-Dichloroethene	39		UG/L	1	39	UG/L
PZ013I	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ013I	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ013I	3/26/2002	156-59-2	cis-1,2-Dichloroethene	78		UG/L	1	78	UG/L
PZ013I	3/26/2002	127-18-4	Tetrachloroethene	890		UG/L	10	890	UG/L
PZ013I	3/26/2002	79-01-6	Trichloroethene	390		UG/L	10	390	UG/L
PZ013I	3/26/2002	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L

TABLE G
EW6 Summary

		Sampling Event							
MW018S	Shallow	August-01	October-01	December-01	March-02	Average	Shallow	Sampling Event	UG/L
		UG/L	UG/L	UG/L	UG/L				
	1,1,1-Trichloroethane	81	45	51					
	1,1-Dichloroethene	8.5	3	4					
	1,2-Dichloroethane	8.5	0.5	0.5					
	Carbon tetrachloride	8.5	0.5	0.5					
	cis-1,2-Dichloroethene	180	65	150					
	Tetrachloroethene	440	510	530					
	Trichloroethene	46	45	54					
	Vinyl chloride	8.5	0.5	0.5					
		Sampling Event				Sampling Event			
MWA001	Shallow	August-01	October-01	December-01	March-02	Average	Shallow	Sampling Event	UG/L
		UG/L	UG/L	UG/L	UG/L				
	1,1,1-Trichloroethane	2300	1800	1000	1000				
	1,1-Dichloroethene	70	69	32	42				
	1,2-Dichloroethane	70	0.5	1	0.5				
	Carbon tetrachloride	70	0.5	1	0.5				
	cis-1,2-Dichloroethene	3600	2400	2700	2200				
	Tetrachloroethene	920	920	720	760				
	Trichloroethene	670	580	480	390				
	Vinyl chloride	70	0.5	1	0.5				
		Sampling Event				Sampling Event			
PZ017I	Intermediate	August-01	October-01	December-01	March-02	Average	Intermediate	Sampling Event	UG/L
		UG/L	UG/L	UG/L	UG/L				
	1,1,1-Trichloroethane	21	50	35	47				
	1,1-Dichloroethene	21	3	1	0.5				
	1,2-Dichloroethane	21	0.5	1	0.5				
	Carbon tetrachloride	21	0.5	1	0.5				
	cis-1,2-Dichloroethene	47	47	39	44				
	Tetrachloroethene	1700	1600	1500	1500				
	Trichloroethene	94	130	82	110				
	Vinyl chloride	21	1	1	1				
		Sampling Event				Sampling Event			
MWB002	Intermediate	August-01	October-01	December-01	March-02	Average	Intermediate	Sampling Event	UG/L
		UG/L	UG/L	UG/L	UG/L				
	1,1,1-Trichloroethane	0.5	0.5	0.5					
	1,1-Dichloroethene	0.5	0.5	0.5					
	1,2-Dichloroethane	0.5	0.5	0.5					
	Carbon tetrachloride	0.5	0.5	0.5					
	cis-1,2-Dichloroethene	0.25	0.5	0.5					
	Tetrachloroethene	0.5	0.5	0.5					
	Trichloroethene	1.2	0.5	0.5					
	Vinyl chloride	2	2	2					
		Sampling Event				Sampling Event			
PZ017D	Deep	August-01	October-01	December-01	March-02	Average	Deep	Sampling Event	UG/L
		UG/L	UG/L	UG/L	UG/L				
	1,1,1-Trichloroethane	0.5	0.5	0.5	0.5				
	1,1-Dichloroethene	0.5	0.5	0.5	0.5				
	1,2-Dichloroethane	0.5	0.5	0.5	0.5				
	Carbon tetrachloride	0.5	0.5	0.5	0.5				
	cis-1,2-Dichloroethene	5.3	3	5	4				
	Tetrachloroethene	0.5	0.5	2	0.5				
	Trichloroethene	0.5	0.5	0.5	0.5				
	Vinyl chloride	9.6	15	15	16				
		Sampling Event				Maximum			
EW-6	Overall Average	August-01	October-01	December-01	March-02	Value			
	1,1,1-Trichloroethane	400.6	316.1	181.3	349.2				
	1,1-Dichloroethene	16.8	12.8	6.4	14.3				
	1,2-Dichloroethane	16.8	0.5	0.7	0.5				
	Carbon tetrachloride	16.8	0.5	0.7	0.5				
	cis-1,2-Dichloroethene	639.6	419.8	483.3	749.3				
	Tetrachloroethene	510.3	505.3	459.1	753.5				
	Trichloroethene	135.4	126.1	102.9	166.8				
	Vinyl chloride	20.1	5.7	5.8	5.8				
						20.1			

Table F
mw018s

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
MW018S	8/2/2001	71-55-6	1,1,1-Trichloroethane	81		UG/L	17	81	UG/L
MW018S	8/2/2001	75-35-4	1,1-Dichloroethene	17	U	UG/L	17	8.5	UG/L
MW018S	8/2/2001	107-06-2	1,2-Dichloroethane	17	U	UG/L	17	8.5	UG/L
MW018S	8/2/2001	56-23-5	Carbon tetrachloride	17	U	UG/L	17	8.5	UG/L
MW018S	8/2/2001	156-59-2	cis-1,2-Dichloroethene	180		UG/L	8.3	180	UG/L
MW018S	8/2/2001	127-18-4	Tetrachloroethene	440		UG/L	17	440	UG/L
MW018S	8/2/2001	79-01-6	Trichloroethene	46		UG/L	17	46	UG/L
MW018S	8/2/2001	75-01-4	Vinyl chloride	17	U	UG/L	17	8.5	UG/L
MW018S	10/15/2001	71-55-6	1,1,1-Trichloroethane	45		UG/L	1	45	UG/L
MW018S	10/15/2001	75-35-4	1,1-Dichloroethene	3	J	UG/L	1	3	UG/L
MW018S	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW018S	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW018S	10/15/2001	156-59-2	cis-1,2-Dichloroethene	65		UG/L	1	65	UG/L
MW018S	10/15/2001	127-18-4	Tetrachloroethene	510		UG/L	5	510	UG/L
MW018S	10/15/2001	79-01-6	Trichloroethene	45		UG/L	1	45	UG/L
MW018S	10/15/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MW018S	12/10/2001	71-55-6	1,1,1-Trichloroethane	51		UG/L	1	51	UG/L
MW018S	12/10/2001	75-35-4	1,1-Dichloroethene	4	J	UG/L	1	4	UG/L
MW018S	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MW018S	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MW018S	12/10/2001	156-59-2	cis-1,2-Dichloroethene	150		UG/L	1	150	UG/L
MW018S	12/10/2001	127-18-4	Tetrachloroethene	530		UG/L	5	530	UG/L
MW018S	12/10/2001	79-01-6	Trichloroethene	54		UG/L	1	54	UG/L
MW018S	12/10/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE F
mwa001

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
MWA001	8/1/2001	71-55-6	1,1,1-Trichloroethane	2300		UG/L	140	2300	UG/L
MWA001	8/1/2001	75-35-4	1,1-Dichloroethene	140	U	UG/L	140	70	UG/L
MWA001	8/1/2001	107-06-2	1,2-Dichloroethane	140	U	UG/L	140	70	UG/L
MWA001	8/1/2001	56-23-5	Carbon tetrachloride	140	U	UG/L	140	70	UG/L
MWA001	8/1/2001	156-59-2	cis-1,2-Dichloroethene	3600		UG/L	71	3600	UG/L
MWA001	8/1/2001	127-18-4	Tetrachloroethene	920		UG/L	140	920	UG/L
MWA001	8/1/2001	79-01-6	Trichloroethene	670		UG/L	140	670	UG/L
MWA001	8/1/2001	75-01-4	Vinyl chloride	140	U	UG/L	140	70	UG/L
MWA001	10/17/2001	71-55-6	1,1,1-Trichloroethane	1800		UG/L	20	1800	UG/L
MWA001	10/17/2001	75-35-4	1,1-Dichloroethene	69		UG/L	1	69	UG/L
MWA001	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWA001	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA001	10/17/2001	156-59-2	cis-1,2-Dichloroethene	2400		UG/L	20	2400	UG/L
MWA001	10/17/2001	127-18-4	Tetrachloroethene	920		UG/L	20	920	UG/L
MWA001	10/17/2001	79-01-6	Trichloroethene	580		UG/L	20	580	UG/L
MWA001	10/17/2001	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L
MWA001	12/12/2001	71-55-6	1,1,1-Trichloroethane	1000		UG/L	25	1000	UG/L
MWA001	12/12/2001	75-35-4	1,1-Dichloroethene	32		UG/L	2	32	UG/L
MWA001	12/12/2001	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
MWA001	12/12/2001	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
MWA001	12/12/2001	156-59-2	cis-1,2-Dichloroethene	2700		UG/L	25	2700	UG/L
MWA001	12/12/2001	127-18-4	Tetrachloroethene	720		UG/L	25	720	UG/L
MWA001	12/12/2001	79-01-6	Trichloroethene	480		UG/L	2	480	UG/L
MWA001	12/12/2001	75-01-4	Vinyl Chloride	2	U	UG/L	2	1	UG/L
MWA001	3/26/2002	71-55-6	1,1,1-Trichloroethane	1000		UG/L	20	1000	UG/L
MWA001	3/26/2002	75-35-4	1,1-Dichloroethene	42		UG/L	1	42	UG/L
MWA001	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWA001	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWA001	3/26/2002	156-59-2	cis-1,2-Dichloroethene	2200		UG/L	20	2200	UG/L
MWA001	3/26/2002	127-18-4	Tetrachloroethene	760		UG/L	20	760	UG/L
MWA001	3/26/2002	79-01-6	Trichloroethene	390		UG/L	20	390	UG/L
MWA001	3/26/2002	75-01-4	Vinyl Chloride	1	U	UG/L	1	0.5	UG/L

TABLE F
pz017i

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPTLIMIT	Modified Result	UNITS
PZ017I	8/2/2001	71-55-6	1,1,1-Trichloroethane	42	U	UG/L	42	21	UG/L
PZ017I	8/2/2001	75-35-4	1,1-Dichloroethene	42	U	UG/L	42	21	UG/L
PZ017I	8/2/2001	107-06-2	1,2-Dichloroethane	42	U	UG/L	42	21	UG/L
PZ017I	8/2/2001	56-23-5	Carbon tetrachloride	42	U	UG/L	42	21	UG/L
PZ017I	8/2/2001	156-59-2	cis-1,2-Dichloroethene	47		UG/L	21	47	UG/L
PZ017I	8/2/2001	127-18-4	Tetrachloroethene	1700		UG/L	42	1700	UG/L
PZ017I	8/2/2001	79-01-6	Trichloroethene	94		UG/L	42	94	UG/L
PZ017I	8/2/2001	75-01-4	Vinyl chloride	42	U	UG/L	42	21	UG/L
PZ017I	10/17/2001	71-55-6	1,1,1-Trichloroethane	50		UG/L	1	50	UG/L
PZ017I	10/17/2001	75-35-4	1,1-Dichloroethene	3	J	UG/L	1	3	UG/L
PZ017I	10/17/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017I	10/17/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017I	10/17/2001	156-59-2	cis-1,2-Dichloroethene	47		UG/L	1	47	UG/L
PZ017I	10/17/2001	127-18-4	Tetrachloroethene	1600		UG/L	20	1600	UG/L
PZ017I	10/17/2001	79-01-6	Trichloroethene	130		UG/L	1	130	UG/L
PZ017I	10/17/2001	75-01-4	Vinyl Chloride	1	J	UG/L	1	1	UG/L
PZ017I	12/12/2001	71-55-6	1,1,1-Trichloroethane	35		UG/L	2	35	UG/L
PZ017I	12/12/2001	75-35-4	1,1-Dichloroethene	2	U	UG/L	2	1	UG/L
PZ017I	12/12/2001	107-06-2	1,2-Dichloroethane	2	U	UG/L	2	1	UG/L
PZ017I	12/12/2001	56-23-5	Carbon Tetrachloride	2	U	UG/L	2	1	UG/L
PZ017I	12/12/2001	156-59-2	cis-1,2-Dichloroethene	39		UG/L	2	39	UG/L
PZ017I	12/12/2001	127-18-4	Tetrachloroethene	1500		UG/L	20	1500	UG/L
PZ017I	12/12/2001	79-01-6	Trichloroethene	82		UG/L	2	82	UG/L
PZ017I	12/12/2001	75-01-4	Vinyl Chloride	2	U	UG/L	2	1	UG/L
PZ017I	3/26/2002	71-55-6	1,1,1-Trichloroethane	47		UG/L	1	47	UG/L
PZ017I	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017I	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017I	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017I	3/26/2002	156-59-2	cis-1,2-Dichloroethene	44		UG/L	1	44	UG/L
PZ017I	3/26/2002	127-18-4	Tetrachloroethene	1500		UG/L	20	1500	UG/L
PZ017I	3/26/2002	79-01-6	Trichloroethene	110		UG/L	1	110	UG/L
PZ017I	3/26/2002	75-01-4	Vinyl Chloride	1	J	UG/L	1	1	UG/L

TABLE F
mwb002

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
MWB002	8/2/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	56-23-5	Carbon tetrachloride	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	156-59-2	cis-1,2-Dichloroethene	0.5	U	UG/L	0.5	0.25	UG/L
MWB002	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	8/2/2001	79-01-6	Trichloroethene	1.2		UG/L	1	1.2	UG/L
MWB002	8/2/2001	75-01-4	Vinyl chloride	2		UG/L	1	2	UG/L
MWB002	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	10/15/2001	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L
MWB002	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	156-59-2	cis-1,2-Dichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
MWB002	12/10/2001	75-01-4	Vinyl Chloride	2	J	UG/L	1	2	UG/L

TABLE F
 pz017d

MP_ID	DATESAMP	CAS	PARAMETER	RESULT	QUAL	UNITS	REPLIMIT	Modified Result	UNITS
PZ017D	8/2/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	56-23-5	Carbon tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	156-59-2	cis-1,2-Dichloroethene	5.3		UG/L	0.5	5.3	UG/L
PZ017D	8/2/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	8/2/2001	75-01-4	Vinyl chloride	9.6		UG/L	1	9.6	UG/L
PZ017D	10/15/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	156-59-2	cis-1,2-Dichloroethene	3	J	UG/L	1	3	UG/L
PZ017D	10/15/2001	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	10/15/2001	75-01-4	Vinyl Chloride	15		UG/L	1	15	UG/L
PZ017D	12/10/2001	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	156-59-2	cis-1,2-Dichloroethene	5	J	UG/L	1	5	UG/L
PZ017D	12/10/2001	127-18-4	Tetrachloroethene	2	J	UG/L	1	2	UG/L
PZ017D	12/10/2001	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	12/10/2001	75-01-4	Vinyl Chloride	15		UG/L	1	15	UG/L
PZ017D	3/26/2002	71-55-6	1,1,1-Trichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	75-35-4	1,1-Dichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	107-06-2	1,2-Dichloroethane	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	56-23-5	Carbon Tetrachloride	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	156-59-2	cis-1,2-Dichloroethene	4	J	UG/L	1	4	UG/L
PZ017D	3/26/2002	127-18-4	Tetrachloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	79-01-6	Trichloroethene	1	U	UG/L	1	0.5	UG/L
PZ017D	3/26/2002	75-01-4	Vinyl Chloride	16		UG/L	1	16	UG/L

TABLE G
Summary Of All EWs

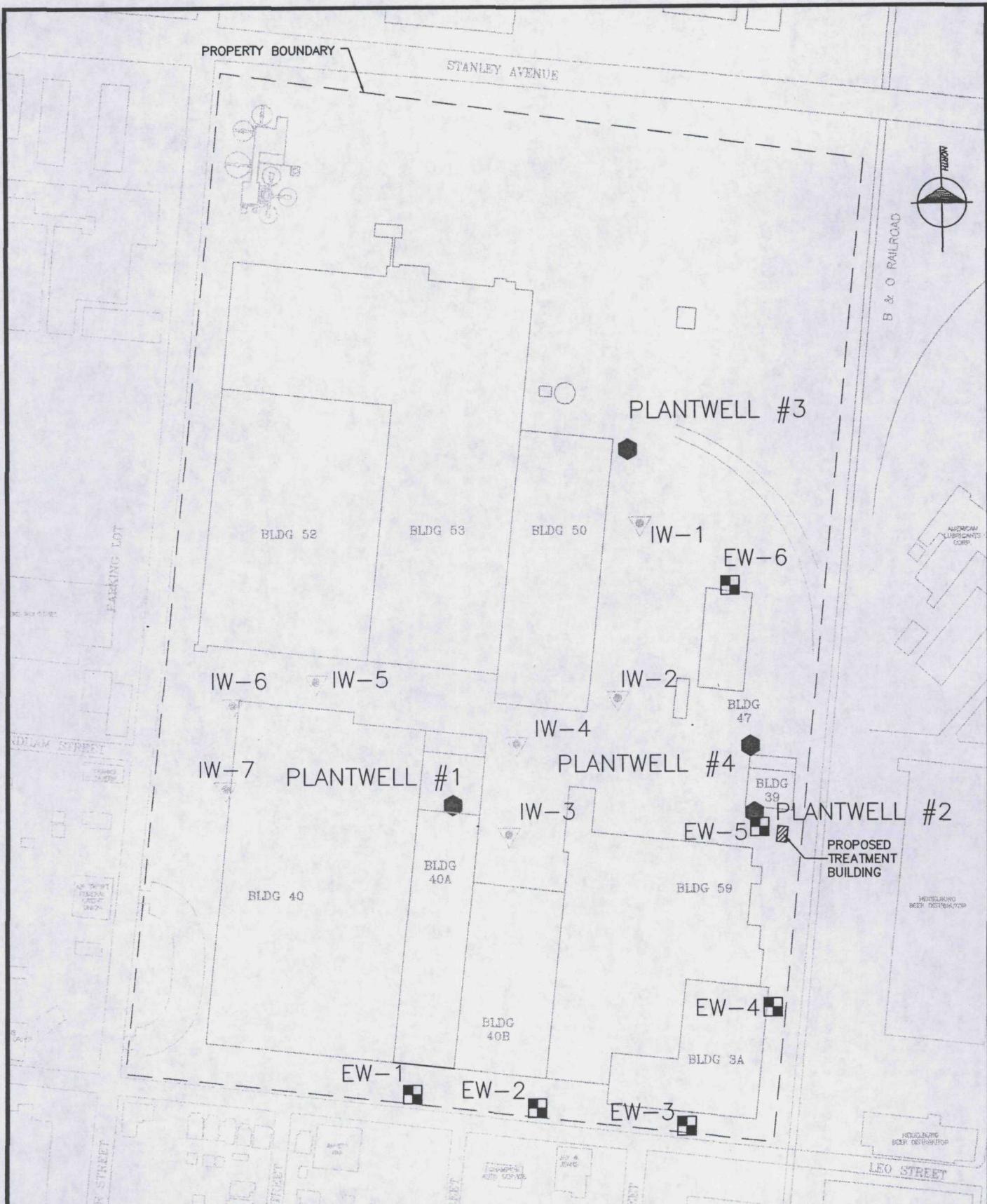
EW-1	Sampling Event				Maximum Value	EW-4	Sampling Event				Maximum Value
	August-01	October-01	December-01	March-02			UG/L	UG/L	UG/L	UG/L	
Overall Average	UG/L	UG/L	UG/L	UG/L	UG/L	Overall Average	UG/L	UG/L	UG/L	UG/L	UG/L
1,1,1-Trichloroethane	60.7	19.2	16.8	17.8	60.7	1,1,1-Trichloroethane	184.4	193.7	180.3	113.7	193.7
1,1-Dichloroethene	60.3	2.0	2.0	2.0	60.3	1,1-Dichloroethene	39.8	44.2	47.5	40.8	47.5
1,2-Dichloroethane	60.3	2.0	2.0	2.0	60.3	1,2-Dichloroethane	19.8	0.7	0.7	1.3	19.8
Carbon tetrachloride	60.3	2.0	2.0	2.0	60.3	Carbon tetrachloride	19.8	0.7	0.7	0.7	19.8
cis-1,2-Dichloroethene	37.2	48.3	83.7	114.0	114.0	cis-1,2-Dichloroethene	358.6	456.8	326.8	683.5	683.5
Tetrachloroethene	3700.2	4367.0	4666.8	6366.8	6366.8	Tetrachloroethene	19.8	2.3	0.8	0.7	19.8
Trichloroethene	785.7	971.3	1310.7	2380.2	2380.2	Trichloroethene	1033.3	931.0	804.0	637.0	1033.3
Vinyl chloride	60.3	2.0	2.0	2.0	60.3	Vinyl chloride	19.8	4.2	3.8	2.5	19.8
EW-2	Sampling Event				Maximum Value	EW-5	Sampling Event				Maximum Value
Overall Average	August-01	October-01	December-01	March-02	Value	Overall Average	August-01	October-01	December-01	March-02	Value
1,1,1-Trichloroethane	252.2	32.5	36.2	22.0	252.2	1,1,1-Trichloroethane	1670.0	1250.0	1235.0	1175.0	1670.0
1,1-Dichloroethene	252.2	17.7	10.0	13.0	252.2	1,1-Dichloroethene	214.0	178.0	189.5	184.5	214.0
1,2-Dichloroethane	252.2	3.9	4.3	5.8	252.2	1,2-Dichloroethane	32.8	3.5	2.8	2.3	32.8
Carbon tetrachloride	252.2	3.9	4.3	5.8	252.2	Carbon tetrachloride	32.8	65.3	0.5	0.5	65.3
cis-1,2-Dichloroethene	1983.3	2038.3	1810.0	1953.3	2038.3	cis-1,2-Dichloroethene	121.5	124.5	117.0	114.0	124.5
Tetrachloroethene	252.2	15.3	21.8	5.8	252.2	Tetrachloroethene	305.0	317.5	379.0	486.5	486.5
Trichloroethene	12700.0	13166.7	10550.0	12250.0	13166.7	Trichloroethene	1400.0	1125.0	1040.0	945.0	1400.0
Vinyl chloride	252.2	267.5	266.1	115.2	267.5	Vinyl chloride	32.8	3.3	2.3	1.3	32.8
EW-3	Sampling Event				Maximum Value	EW-6	Sampling Event				Maximum Value
Overall Average	August-01	October-01	December-01	March-02	Value	Overall Average	August-01	October-01	December-01	March-02	Value
1,1,1-Trichloroethane	108.0	119.2	113.2	140.8	140.8	1,1,1-Trichloroethane	400.6	316.1	181.3	349.2	400.6
1,1-Dichloroethene	44.7	25.2	24.8	37.8	44.7	1,1-Dichloroethene	16.8	12.8	6.4	14.3	16.8
1,2-Dichloroethane	44.7	17.0	12.7	25.0	44.7	1,2-Dichloroethane	16.8	0.5	0.7	0.5	16.8
Carbon tetrachloride	44.7	1.2	1.2	0.5	44.7	Carbon tetrachloride	16.8	0.5	0.7	0.5	16.8
cis-1,2-Dichloroethene	790.9	726.8	603.5	750.2	790.9	cis-1,2-Dichloroethene	639.6	419.8	483.3	749.3	749.3
Tetrachloroethene	44.7	28.5	2.3	0.7	44.7	Tetrachloroethene	510.3	505.3	459.1	753.5	753.5
Trichloroethene	3241.7	2867.0	3000.2	2333.5	3241.7	Trichloroethene	135.4	126.1	102.9	166.8	166.8
Vinyl chloride	44.7	9.8	9.8	12.2	44.7	Vinyl chloride	20.1	5.7	5.8	5.8	20.1

TABLE H
COMBINATIONS OF EXTRACTION WELLS AT 100 GPM EACH

	Sampling Event				Maximum
	August-01	October-01	December-01	March-02	Value
	UG/L	UG/L	UG/L	UG/L	UG/L
EW-1,2,3,4					
Overall Average	151.3	91.1	86.6	73.6	151.3
1,1,1-Trichloroethane	151.3	91.1	86.6	73.6	151.3
1,1-Dichloroethene	99.3	22.3	21.1	23.4	99.3
1,2-Dichloroethane	94.3	5.9	4.9	8.5	94.3
Carbon tetrachloride	94.3	1.9	2.0	2.2	94.3
cis-1,2-Dichloroethene	792.5	817.6	706.0	875.3	875.3
Tetrachloroethene	1004.2	1103.3	1173.0	1593.5	1593.5
Trichloroethene	4440.2	4484.0	3916.2	4400.2	4484.0
Vinyl chloride	94.3	70.9	70.4	33.0	94.3
EW-3,4,5,6					
Overall Average	590.7	469.7	427.4	444.7	590.7
1,1,1-Trichloroethane	590.7	469.7	427.4	444.7	590.7
1,1-Dichloroethene	78.8	65.0	67.1	69.4	78.8
1,2-Dichloroethane	28.5	5.4	4.2	7.3	28.5
Carbon tetrachloride	28.5	16.9	0.8	0.5	28.5
cis-1,2-Dichloroethene	477.7	432.0	382.6	574.3	574.3
Tetrachloroethene	219.9	213.4	210.3	310.3	310.3
Trichloroethene	1452.6	1262.3	1236.8	1020.6	1452.6
Vinyl chloride	29.3	5.7	5.4	5.4	29.3
EW-1,2,3,4,5,6					
Overall Average	446.0	321.8	293.8	303.1	446.0
1,1,1-Trichloroethane	446.0	321.8	293.8	303.1	446.0
1,1-Dichloroethene	104.6	46.6	46.7	48.8	104.6
1,2-Dichloroethane	71.1	4.6	3.8	6.1	71.1
Carbon tetrachloride	71.1	12.3	1.5	1.7	71.1
cis-1,2-Dichloroethene	655.2	635.8	570.7	727.4	727.4
Tetrachloroethene	805.3	872.7	921.7	1269.0	1269.0
Trichloroethene	3216.0	3197.8	2801.3	3118.8	3216.0
Vinyl chloride	71.6	48.7	48.3	23.2	71.6

Maximum Value per Compound from Above Combinations

	UG/L
1,1,1-Trichloroethane	590.7
1,1-Dichloroethene	104.6
1,2-Dichloroethane	94.3
Carbon tetrachloride	94.3
cis-1,2-Dichloroethene	875.3
Tetrachloroethene	1593.5
Trichloroethene	4484.0
Vinyl chloride	94.3



EARTHTECH

ATYOO INTERNATIONAL LTD. COMPANY
4135 TECHNOLOGY PARKWAY, SHEBOYGAN, WISCONSIN 53083

FIGURE 1
WELL LOCATIONS
DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

DRAWN BY: JRD	EDITED BY: JRD	PROJECT NUMBER: 55465	FILE NAME: WELLS.DWG
CHECKED BY: JE	DATE: FEB. 18, 2003	SCALE: 1250	

BLD
40E

MW21S

PZ008D

PZ008I

EW-1

MW008S

MWA004

AMVETS
BAR

LEGEND

 - EXTRACTION WELL

 - MONITORING WELL USED
IN CALCULATION

 - MONITORING WELL NOT
USED

0 50 100

SCALE IN FEET



EARTH TECH


Atyco International Ltd. Company
4135 Technology Parkway, Sheboygan, WI 53083 (920) 458-8711

DRAWN BY: JRD	DATE: FEB. 18, 2003
CHECKED BY: RS	EDITED BY: JRD

FILE NAME: EXTRACTION WELL DATA

FIGURE 2
EXTRACTION WELL 1

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT
NUMBER 55465

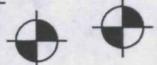
BLDG
40B

MW021S



MW023S

MWA004



PZ009D



EW-2

MW010S



PZ010I

CHAMPION
AUTO SERVICE

LEGEND

- EXTRACTION WELL

- MONITORING WELL USED
IN CALCULATION

- MONITORING WELL NOT
USED

0 50 100



SCALE IN FEET

E A R T H T E C H
A tyco INTERNATIONAL LTD. COMPANY

4135 Technology Parkway, Sheboygan, WI 53083 (920) 458-8711

DRAWN BY: JRD DATE: FEB. 18, 2003

CHECKED BY: RS EDITED BY: JRD

FILE NAME: EXTRACTION WELL DATA

FIGURE 3
EXTRACTION WELL 2

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465

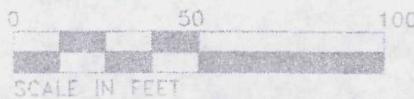
BLDG 3A

PZ0101

MW011S
EW-3
MWC003
MWB003

LEGEND

-  - EXTRACTION WELL
-  - MONITORING WELL USED IN CALCULATION
-  - MONITORING WELL NOT USED



E A R T H T E C H

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4135 Technology Parkway, Sheboygan, WI 53083 (920) 458-8711

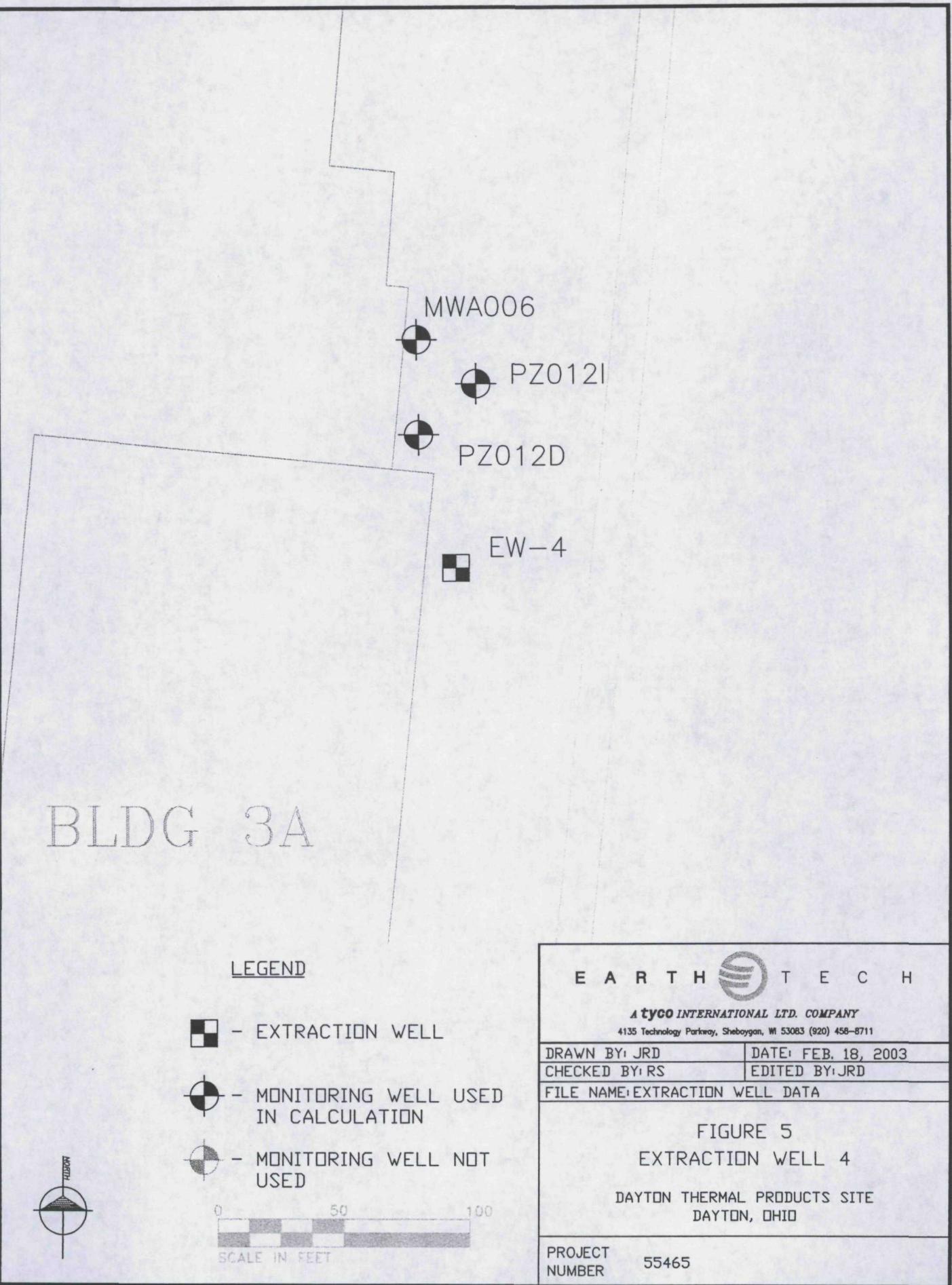
DRAWN BY: JRD	DATE: FEB. 18, 2003
CHECKED BY: RS	EDITED BY: JRD

FILE NAME: EXTRACTION WELL DATA

FIGURE 4
EXTRACTION WELL 3

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



47

MWA005



BLDG
39

PZ013I



EW-5



BLDG 59

LEGEND

- EXTRACTION WELL

- MONITORING WELL USED
IN CALCULATION

- MONITORING WELL NOT
USED



E A R T H T E C H

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4135 Technology Parkway, Sheboygan, WI 53083 (920) 458-8711

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FIGURE 6
EXTRACTION WELL 5

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465



MWB002



MW018S

EW-6

PZ017I
PZ017D

LEGEND

-  - EXTRACTION WELL
-  - MONITORING WELL USED IN CALCULATION
-  - MONITORING WELL NOT USED



E A R T H T E C H

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FILE NAME: EXTRACTION WELL DATA

FIGURE 7
EXTRACTION WELL 6

DAYTON THERMAL PRODUCTS SITE
DAYTON, OHIO

PROJECT NUMBER 55465

Material Safety Data Sheet

Sodium Lactate, 60%

Date of Preparation: 9/17/02

24 Hour Emergency Phone: CHEMTREC 1-800-424-9300

Revision: 9/17/02

Section 1 - Chemical Product and Company Identification

Synonyms: Lacolin; Lactic Acid, monosodium Salt; Propanoic acid, 2-hydroxy-, monosodium salt
CAS No: 72-17-3
Molecular Weight: 112.07
Chemical Formula: C₃H₅O₃Na
Distributed by:
Hawkins, Inc. 3100 E. Hennepin Avenue Minneapolis, MN 55413 (612-331-6910)

Section 2 - Composition / Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Sodium Lactate	72-17-3	60%	Yes

Section 3 - Hazards Identification

Emergency Overview

CAUTION! MAY CAUSE EYE IRRITATION.

Potential Health Effects

To the best of our knowledge, the toxicological properties of this material have not been thoroughly investigated.

Inhalation: No adverse health effects expected from inhalation.

Ingestion: Not expected to be a health hazard via ingestion.

Skin Contact: Not expected to be a health hazard from skin exposure.

Eye Contact: May cause mild irritation, possible reddening.

Chronic Exposure: No information found.

Aggravation of Pre-existing Conditions: No information found.

Section 4 - First Aid Measures

Inhalation:

Not expected to require first aid measures. Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:

Not expected to require first aid measures. If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:

Not expected to require first aid measures. Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

Sodium Lactate, 60%

revised: 9/17/02

24 Hour Emergency Phone: CHEMTRAC 1-800-424-9300

Section 5 - Fire-Fighting Measures

NFPA Ratings:

Health: 1 Flammability: 0 Reactivity: 0

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be an explosion hazard.

Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6 - Accidental Release Measures

Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer!

Section 7 - Handling and Storage

Keep in a tightly closed container, stored in a cool (> 65°F), dry, ventilated area. Protect against physical damage. Avoid long storage times. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

Section 8 - Exposure Controls / Personal Protection

Airborne Exposure Limits: None established.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved):

For conditions of use where exposure to the substance is apparent and engineering controls are not feasible, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Section 9 - Physical and Chemical Properties

Appearance: Colorless to yellow liquid.

Odor: Odorless.

Solubility: Complete (100%)

Specific Gravity: 1.31

pH: 6.5 ~ 8.5

Boiling Point: 110C (230F)

Melting Point: 17C (63F)

Vapor Density (Air=1): 0.7

Vapor Pressure (mm Hg): 14 @ 20C (68F)

Evaporation Rate (BuAc-1): No information found.

% Volatiles by volume @ 21C (70F):
No information found.

Section 10 - Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: No information found.

Conditions to Avoid: None.

Section 11- Toxicological Information

Oral rat LD50: 2000 mg/Kg. Irritation Data for Sodium Lactate: (Std Draize, rabbit, eye): 100 mg - mild.

-----\Cancer Lists\-----

Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Sodium Lactate (72-17-3)	No	No	None

Section 12 - Ecological Information

Environmental Fate:

Mobility: Completely soluble.

Persistence / degradability: Product is a salt of lactic acid, which is readily biodegradable.

Bioaccumulation: Unlikely.

Ecotoxicity: Ecological injuries are not known or expected under normal use: (No effect on Daphnia @ 10g/L).

Environmental Toxicity: No information found.

Section 13 - Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Dispose of container and unused contents in accordance with federal, state and local requirements.

Section 14 - Transport Information

Not regulated.

Section 15 - Regulatory Information

-----\Chemical Inventory Status - Part 1\-----

Ingredient	TSCA	EC	Japan	Australia
Sodium Lactate (72-17-3)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----

Ingredient	Korea	DSL	NDSL	Phil.	--Canada--
Sodium Lactate (72-17-3)	Yes	Yes	No	Yes	

-----\Federal, State & International Regulations - Part 1\-----

Ingredient	RQ	TPQ	List	SARA 313	Chemical Catg.
Sodium Lactate (72-17-3)	No	No	No		No

-----\Federal, State & International Regulations - Part 2\-----

Ingredient	CERCLA	-RCRA-	-TSCA-
Sodium Lactate (72-17-3)	No	261.33	8(d)

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No
 Reactivity: No (Mixture / Liquid)

Section 16 - Other Information

Prepared By: Chris W. Gibson

Revision Notes: New Product

Disclaimer:

Please be advised that it is your responsibility to inform your employees of the hazards of this substance, to advise them of what these properties mean and be sure they understand exposure information.

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge. No warranty or guaranty, express or implied, is made regarding performance, stability, or otherwise. This information is not intended to be all-inclusive as to the manner and conditions of use, handling, and storage. Other factors may require additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, the handling and use remains the responsibility of the customer. No suggestions are intended as, and should not be construed as, a recommendation to infringe on any existing patents or to violate any Federal, State, or local laws.